



SAMSUNG

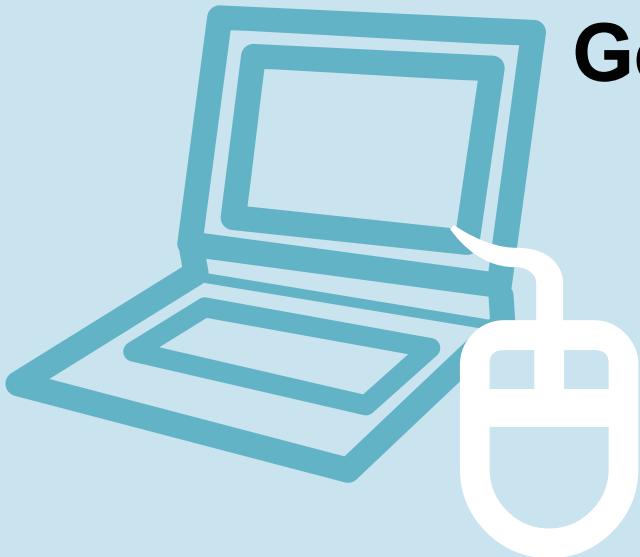
# **SAMSUNG R19/R20/R21 R19plus/R20plus/R21plus R25plus/R26plus**

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## **User Guide**

# Chapter 1.

# Getting Started



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# Product Features



## High Performance Notebook Computer

A high performance computer adopting the latest CPU and DDR II memory

- Intel Core™2 Duo Processor, Intel Core™ Duo/Solo Processor\*, DDR II Memory
- Wireless LAN\*, Bluetooth\*
- 14.1" Wide LCD

## Easy-to-Use AV

Play AVStation and AVStation Now\* are provided to easily play various multimedia files.

## Sophisticated Design for Increased Usability

- AV Button and various shortcut keys on the keyboard
- Multi card slot\*
- Luxurious design with increased usability



### Note

\* The items marked with this symbol are optional items that are supported depending on the computer model.

# Before You Start

Before reading the User Guide, first check the following information.

## User Guide Information

This product is supplied with an **Installation Guide**, and a **User Guide**.

You can even more easily and conveniently use the computer by using any of the guides depending on your needs.

### Installation Guide

This guide is provided so that you can conveniently refer to this guide when using the computer for the first time after purchasing it.

This document includes the computer components and the connection procedures.



You are currently reading the User Guide. To open the file at any time, double-click the icon on the Desktop.

Alternatively, select **Start > All Programs > Samsung >User Guide > User Guide**.

This document includes the computer functions, how to use the functions, and how to use the program.

## Utilizing the User Guide

- ❶ Be sure to read the **Safety Precautions** before using the computer.
- ❷ Refer to the separately supplied **Installation Guide** when installing your computer.
- ❸ Refer to the **User Guide** for the procedures to use the computer.
- ❹ Using the **Index** of the User Guide, you can easily find any information you are looking for.
- ❺ Using the **Glossary** of the User Guide, you can easily find meanings for technical terms.
- ❻ If a problem occurs, refer to the **Q & A** included in the User Guide.



### Note

- Some devices and software referred to in the User Guide may not be provided and/or changed by upgrade.  
Note that the computer environment referred in the User Guide may not be the same as your own environment.
- Images used in this User Guide may differ from actual product.
- This guide describes procedures for using both the mouse and the touchpad.
- The illustrations provided in this guide assume that your operating system is Windows Vista. These illustrations are subject to change.
- The User guide supplied with this computer may vary depending on your model.

## Safety Precaution Notations

Icon	Notation	Description
	<b>Warning</b>	Failing to follow instructions marked with this symbol, may cause personal injury and or fatality.
	<b>Caution</b>	Failing to follow instructions marked with this symbol, may cause slight injury to yourself or damage your property.

## Text Notations

Icon	Notation	Description
	<b>Before You Start</b>	Content included in this section includes information required before using a function.
	<b>Caution</b>	Content included in this section includes information required about the function.
	<b>Note</b>	Content included in this section includes helpful information to use the function.
	<b>Page XX</b>	This notation represents the page number you can refer to for information about related functions or as a reference.
<b>Start &gt; All Programs &gt; Samsung &gt; User Guide &gt; User Guide</b>		This represents a menu path to run a program. Click the Start button and then select <b>All Programs &gt; Samsung &gt; User Guide &gt; User Guide</b> in this order from the menu.

## Copyright

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The information in this document is subject to change without notice due to improving the performance of the product.

Samsung Electronics shall not be liable for any data loss. Please take care to avoid losing any important data and backup your data to prevent any such data loss.

## Precautions for Operating System Support

The operating system (OS) installed on this product is the latest version of Windows Vista.

Other operating systems (Windows 98, Windows ME, Windows 2000, Windows 2003 server, UNIX and LINUX, other Windows Vista versions, etc.) other than the operating system already installed on this computer are not supported.

If a problem occurs because of the installation of another operating system, the company will not provide technical support, a replacement or refund, and if our service engineer visits you due to this problem, a service charge will be applied.

In addition, installing a program that does not support Windows Vista, may cause the program to not work properly.

In this case, ask the corresponding software manufacturer about the problem. If you request our services to resolve a problem caused by incompatible software, a service charge will be applied.

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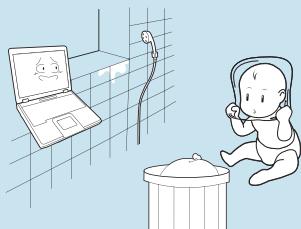
# Safety Precautions

For your security and to prevent damage, please read the following safety instructions carefully. Since this is commonly applied to Samsung Computers, some figures may differ from actual ones.

## ⚠ Warning

Failing to follow instructions marked with this symbol may cause personal injury and even fatality.

### Installation Related

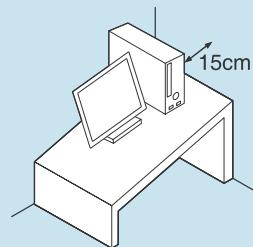


**Do not install the product in places exposed to humidity such as a bathrooms.**

There is a danger of electric shock. Use the product within the operating conditions specified in the Manufacturers User Guide.

**Keep the plastic bags out of the reach of children.**

There is a danger of suffocation.



**Keep a distance of 15cm or more between the computer and the wall and do not place any objects between them.**

This may increase the internal temperature of the computer and may cause an injury.

**Do not install the computer on a slant or a place prone to vibrations, or avoid using the computer in that location for a long time.**

This increases the risk that a malfunction or damage to the product will occur.

### Power Related

The power plug and wall outlet figures may differ depending on the country specifications and the product model.

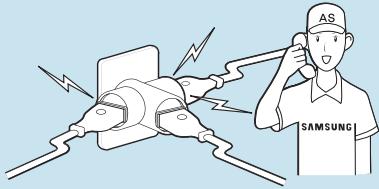


**Do not touch the mains plug or power cord with wet hands.**

There is a danger of electric shock.

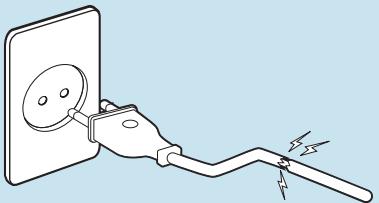
**Do not exceed the standard capacity (voltage/current) of a multi-plug or power outlet extension when using it for the product.**

There is a danger of electric shock or fire hazard.



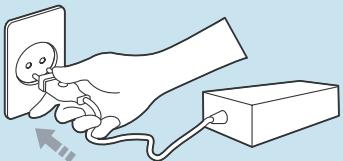
**If the power cord or power outlet makes a noise, disconnect the power cord from the wall outlet and contact a service center.**

There is a danger of electric shock or fire hazard.



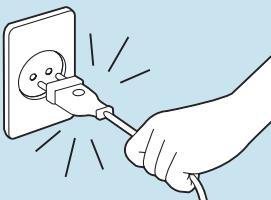
**Do not use a damaged or loose mains plug or power cord or power outlet.**

There is a danger of electric shock or fire hazard.



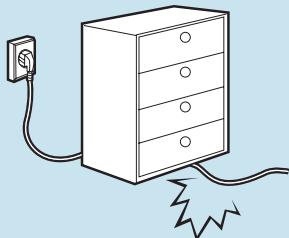
**Plug the power cord firmly into the power outlet and AC adapter.**

Failing to do so may cause fire hazard.



**Do not unplug the power cord out by pulling the cable only.**

If the cord is damaged, it may cause electric shock.

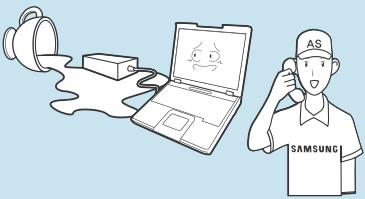


**Do not bend the power cord excessively or do not place a heavy object over the power cord. It is especially important to keep the power cord out of reach of infants and pets.**

If the cord is damaged, it may cause electric shock or fire.

**Use a wall outlet or multi-plug with a grounding part.**

Failing to do so may cause electric shock hazard.



If water or another substance enters the power input jack, AC adapter or the computer, disconnect the power cord and contact the service center.

Damage to the device within the computer may cause electric shock or fire hazard.

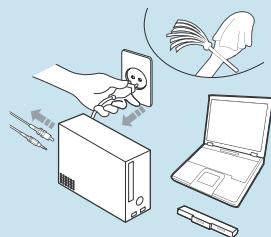
## Battery Usage Related



Keep the battery out of the reach of infants and pets, as they could put the battery into their mouths.

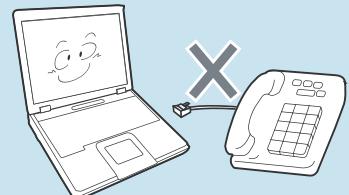
There is a danger of electric shock or choking.

## Usage Related



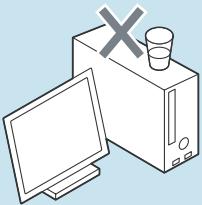
Disconnect all cables connected to the computer before cleaning it. If you are using a notebook computer, remove the battery.

There is a danger of electric shock or damage to the product.



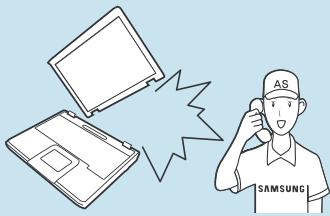
Do not connect a phone line connected to a digital phone to the modem.

There is a danger of a electric shock, fire or damage to the product.



**Do not place any container filled with water or chemicals over or near the computer.**

If water or chemicals enter the computer, this may cause fire or electric shock.



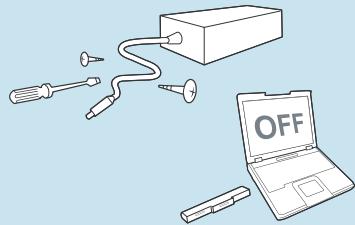
**If the computer is broken or dropped, disconnect the power cord and contact a service center for a safety check.**

Using a broken computer may cause electric shock or fire hazard.

**Avoid direct sunlight when the computer is in an air-tight location such as inside a vehicle.**

There is a danger of a fire hazard. The computer may overheat and also present opportunity to thieves.

## Upgrade Related



**Never disassemble the power supply or AC adapter.**

There is a danger of electric shock.

**When removing the RTC (Real Time Clock) battery, keep it out of the reach of children as they could touch and/or swallow it.**

There is a danger of choking. If a child has swallowed it, contact a doctor immediately.

**Use only authorized parts (multi-plug, battery and memory) and never disassemble parts.**

There is a danger of damaging the product, electric shock or fire hazard.

**Shut down the computer and disconnect all cables before disassembling the computer. If there is a modem, disconnect the phone line. If you are using a notebook computer, make sure to remove the battery.**

Failing to do so, may cause electric shock.

## **Custody and Movement Related**



**Follow the instructions for the relevant location (e.g. airplane, hospital, etc.) when using a wireless communication device (wireless LAN, Bluetooth, etc.).**

## Caution

Failing to follow instructions marked with this symbol may cause slight injury or damage to the product.

### Installation Related

**Do not block the ports (holes), vents, etc. of the product and do not insert objects.**

Damage to a component within the computer may cause electric shock or fire.

**When using the computer with it lying on its side, place it so that the vents face upwards.**

Failing to do so, may cause the internal temperature of the computer to rise and the computer to malfunction or halt.

**Do not place a heavy object over the product.**

This may cause a problem with the computer. In addition, the object may fall and cause injury, or damage the computer.

### Battery Usage Related

**Dispose of worn-out batteries properly.**

- There is a danger of fire or explosion.
- The battery disposal method may differ depending on your country and region. Dispose of the used battery in an appropriate way.

**Do not throw or disassemble the battery and do not put it into water.**

This may cause an injury, fire or explosion.

**Use only a battery authorized by Samsung Electronics.**

Failing to do so may cause an explosion.

**Avoid contact with metal objects such as car keys or clips when keeping or carrying a battery.**

Contact with a metal may cause excessive current and a high temperature and may damage the battery or cause a fire.

**Charge the battery according to the instructions in the manual.**

Failing to do so, may cause an explosion or fire from damage to the product.

**Do not heat the battery or expose it to heat (e.g. inside a vehicle during the summer).**

There is a danger of explosion or fire.

## Usage Related

**Do not place a candle, lighted cigar, etc. over or on the product.**

There is a danger of fire.

**Make sure to have the product tested by a safety service engineer after repairing the product.**

Authorised Samsung Repair Centers will carry out safety checks after a repair. Using a repaired product without testing it for safety might cause electric shock or fire.

**In case of lightning, immediately turn the system off, disconnect the power cord from the wall outlet and line do not use a modem or phone.**

There is a danger of electric shock or fire.

**Connect only permitted devices to the connectors or ports of the computer.**

Failing to do so, may cause electric shock and fire.

**Close the LCD panel only after checking if the notebook computer is turned off.**

The temperature may rise and it may cause overheating and deformation of the product.

**Do not press the Eject Button while the Floppy Disk/CD-ROM drive is in operation.**

You might lose data and the disk might be suddenly ejected and could cause an injury.

**Take care not to drop the product while using it.**

This may cause personal injury or loss of data.

**Do not contact the antenna with electricity facility such as the power outlet.**

There is a danger of electric shock.

**When handling computer parts, follow the instructions on the manual supplied with the parts.**

Failing to do so, may cause damage to the product.

**If the computer emits smoke, or there is a burning smell, disconnect the power plug from the wall outlet and contact a service center. If your computer is a notebook computer, make sure to remove the battery.**

There is a danger of fire.

**Do not use a damaged or modified CD/Floppy Disk.**

There is a danger of damaging the product or personal injury.

**Do not insert your fingers into the PC Card Slot.**

There is a danger of injury or electric shock.

**Use recommended computer cleansing solution when cleaning the product and only use the computer when it is completely dried.**

## Upgrade Related

Failing to do so may cause electric shock or fire.

**Emergency disk eject method using paperclip should not be used while the disk is in motion. Make sure to use the emergency disk eject method only when the Optical Disk Drive is stopped.**

There is a danger of injury.

**Do not place your face close to the Optical Disk Drive tray when it is operating.**

There is a danger of injury due to an abrupt ejection.

**Check CDs for cracks and damage prior to use.**

It may damage the disc and cause disorder of device and injury of user.

**Take care when touching the product or parts.**

The device may be damaged or you may be injured.

**Take care not to throw or drop a computer part or device.**

This may cause injury or damage to the product.

**Make sure to close the computer cover before connecting the power after a reassembly.**

There is a danger of electric shock if your body touches an internal part.

**Use parts authorized by Samsung Electronics only.**

Failing to do so, may cause fire or damage the product.

**Never disassemble or repair the product by yourself.**

There is a danger of electric shock or fire.

**To connect a device that is not manufactured or authorized by Samsung Electronics, enquire at your service center before connecting the device.**

There is a danger of damaging the product.

## **Custody and Movement Related**

**When moving the product, turn the power off and separate all connected cables first.**

The product might be damaged or users may trip over the cables.

**For long periods of not using the notebook computer, discharge the battery and preserve as it is detached.**

The battery will be preserved at its best condition.

**Do not operate or watch the computer while driving a vehicle.**

This may cause a traffic accident. Concentrate on driving.

## **Cautions on Preventing Data Loss (Hard Disk Management)**

**Take care not to damage the data on a hard disk drive.**

- A hard disk drive is so sensitive to external impact that an external impact may cause loss of data on the surface of the disk.
- Take extra care, because moving the computer or an impact on the computer when it is turned on may damage the data of the hard disk drive.
- The company is not liable for the loss of any data caused by customer such as the carelessness usage or bad environmental condition.

**Causes that may damage the data of a hard disk drive and the hard disk drive itself.**

- The data may be lost when an external impact is applied to the disk while disassembling or assembling the computer.
- The data may be lost when the computer is turned off or reset by a power failure while the hard disk drive is operating.
- The data may be lost and irrecoverable due to a computer virus infection.
- The data may be lost if the power is turned off while running a program.
- Moving or causing an impact to the computer while the hard disk drive is operating, may cause files to be corrupted or bad sectors on the hard disk.

**To prevent data loss due to damage to the hard disk drive, please backup your data frequently.**

# Proper Posture During Computer Use

Maintaining a proper posture during computer use is very important to prevent physical harm.

The following instructions are about maintaining a proper posture during computer use developed through human engineering. Please read and follow them carefully when using the computer.

Otherwise, the probability of (RSI: Repetitive Strain Injury) from repeated operations may increase and serious physical harm may be caused.



## Note

The instructions in this manual have been prepared so that they can be applied within the coverage of general users. If the user is not included in the coverage, the recommendation is to be applied according to the user's needs.

Since this is commonly applied to Samsung Computers, some figures may differ from actual ones.

## Proper Posture

### Adjust the heights of desks and chairs appropriate to your height.

The heights are to be adjusted so that your arm forms a right angle when you place your hand over the keyboard while sitting down on a chair.

Adjust the height of chair so that your heel is comfortably placed on the floor.

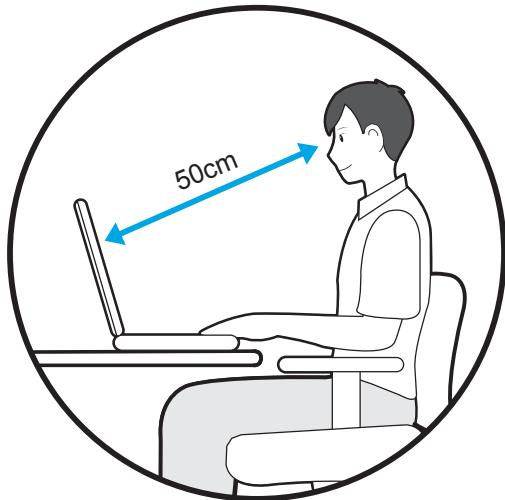
- Do not use the computer while you are lying down, but only while you are sitting down.
- Do not use the computer on your lap. If the computer temperature increases, there is a danger of burning yourself.
- Work while keeping your wrist straight.
- Use a chair with a comfortable back.
- Keep the center of your leg weight not on the chair but on your feet when you are sitting on a chair.

- To use the computer while talking over the telephone, use a headset. Using the computer with the phone on your shoulder is bad for posture.
- Keep frequently used items within a comfortable work range (where you can reach them with your hands).



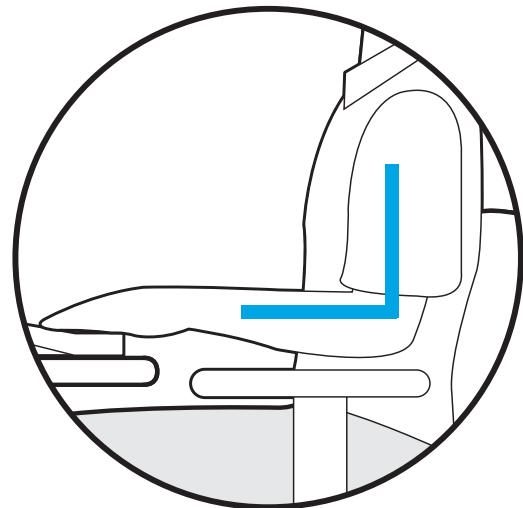
## Eye Position

Keep the monitor or LCD away from your eyes by at least 50cm.



## Hand Position

Keep your arm at a right angle as shown by the figure.



- Adjust the height of the monitor and the LCD screen so that its top height is equal to or lower than your eyes.
- Avoid setting the monitor and LCD excessively bright.
- Keep the monitor and LCD screen clean.
- If you wear glasses, clean them before using the computer.
- When entering contents printed on a paper into the computer, use a static paper holder so that the height of the paper is almost equal to that of the monitor.

- Keep the line from your elbow to your hand straight.
- Do not place your palm over the keyboard while typing.
- Do not hold the mouse with excessive force.
- Do not press the keyboard, touchpad or mouse with excessive force.
- It is recommended connecting an external keyboard and mouse when using the computer for long periods of time.

## Volume Control (Headphones and Speakers)

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**Check your volume first to listen to music.**



- Check if the volume is too loud before using headphones.
- It is not recommended using headphones for long periods of time.

## Illumination

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- Do not use the computer in dark locations. The illumination level for computer use must be as bright so for reading a book.
- Indirect illumination is recommended. Use a curtain to prevent reflection on the LCD screen.

## Operation Condition

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- Do not use the computer in hot and humid locations.
- Use the computer within the allowed temperature and humidity range specified in the User Guide.

## Use Time (Break Time)

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- Take a break for 10 minutes or more after a 50-minute period when working for more than one hour.

# Important Safety Information

## Safety instructions

Your system is designed and tested to meet the latest standards for safety of information technology equipment. However, to ensure safe use of this product, it is important that the safety instructions marked on the product and in the documentation are followed.



### Caution

Always follow these instructions to help guard against personal injury and damage to your system.

## Setting Up your System

- Read and follow all instructions marked on the product and in the documentation before you operate your system. Retain all safety and operating instructions for future use.
- Do not use this product near water or a heat source such as a radiator.
- Set up the system on a stable work surface.
- The product should be operated only with the type of power source indicated on the rating label.
- Ensure that the electrical outlet you are using to power your equipment is easily accessible in case of fire or short circuit.
- If your computer has a voltage selector switch, make sure that the switch is in the proper position for your area.

- Openings in the computer case are provided for ventilation. Do not block or cover these openings. Make sure you provide adequate space, at least 6 inches (15 cm), around the system for ventilation when you set up your work area.  
Never insert objects of any kind into the computer ventilation openings.
- Ensure that the fan vents on the bottom of the casing are clear at all times. Do not place the computer on a soft surface, doing so will block the bottom vents.
- If you use an extension cord with this system, make sure that the total power rating on the products plugged into the extension cord does not exceed the extension cord power rating.

## Care During Use

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- Do not walk on the power cord or allow anything to rest on it.
- Do not spill anything on the system. The best way to avoid spills is to not eat or drink near your system.
- Some products have a replaceable CMOS battery on the system board. There is a danger of explosion if the CMOS battery is replaced incorrectly. Replace the battery with the same or equivalent type recommended by the manufacturer.  
Dispose of batteries according to the manufacturers instructions. If the CMOS battery requires replacement insure that a qualified technician performs the task.
- When the computer is turned off, a small amount of electrical current still flows through the computer. To avoid electrical shock, always unplug all power cables, remove the battery and modem cables from the wall outlets before cleaning the system.
- Unplug the system from the wall outlet and refer servicing to qualified personnel if:
  - The power cord or plug is damaged.
  - Liquid has been spilled into the system.
  - The system does not operate properly when the operating instructions are followed.
  - The system was dropped or the casing is damaged.
  - The system performance changes.

## The Instruction On Safety Operation of computer

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- 1** When installing and operating devices please refer to safety requirements in the user guide.
- 2** Devices can be used only with the equipment specified in the technical specifications of the devices.
- 3** If any smell of burning or smoke from the computer the unit should be switched off and battery removed. The unit should be checked by a qualified technician before reuse.
- 4** Service and repair of devices should be carried out by authorized service centers.

# Replacement Parts and Accessories

Use only replacement parts and accessories recommended by manufacturer.



## Caution

To reduce the risk of fire, use only No. 26 AWG or larger telecommunications line cord.



## Note

Do not use this product in areas classified as hazardous. Such areas include patient care areas of medical and dental facilities, oxygen rich environments, or industrial areas.

## Battery Disposal



## Caution

Do not put rechargeable batteries or products powered by non-removable rechargeable batteries in the garbage.

Contact the Samsung Helpline for information on how to dispose of batteries that you cannot use or recharge any longer.

Follow all local regulations when disposing of old batteries.



## Caution

THERE IS A RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE.

DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS

## Laser Safety

All systems equipped with CD or DVD drives comply with the appropriate safety standards, including IEC 60825-1. The laser devices in these components are classified as "Class 1 Laser Products" under a US Department of Health and Human Services (DHHS) Radiation Performance Standard. Should the unit ever need servicing, contact an authorized service location.



## Caution

### ▪ Laser Safety Note:

Use of controls or adjustments or performance of procedures other than those specified in this manual may result in hazardous radiation exposure. To prevent exposure to laser beams, do not try to open the enclosure of a CD or DVD drive.

- Class 1M laser radiation when operating part is open.  
Do not view directly with optical instruments.
- Class 3B invisible laser radiation when open.  
Avoid exposure to the beam.

## Connect and Disconnect the AC adapter

The socket-outlet shall be installed near the equipment and shall be easily accessible.

**Do not unplug the power cord out by pulling the cable only.**

## Power Cord Requirements

The power cord set (wall plug, cable and AC adapter plug) you received with your computer meets the requirements for use in the country where you purchased your equipment.

Power cord sets for use in other countries must meet the requirements of the country where you use the computer. For more information on power cord set requirements, contact your authorized dealer, reseller, or service provider.

## General Requirements

---

**The requirements listed below are applicable to all countries:**

- The length of the power cord set must be at least 6.00 feet (1.8m) and a maximum of 9.75 feet (3.0m).
- All power cord sets must be approved by an acceptable accredited agency responsible for evaluation in the country where the power cord set will be used.
- The power cord set must have a minimum current capacity of 7 A and a nominal voltage rating of 125 or 250 volts AC, as required by each country's power system.
- The appliance coupler must meet the mechanical configuration of an EN 60 320/IEC 320 Standard Sheet C7 connector, for mating with appliance inlet on the computer.

# Regulatory Compliance Statements

## Wireless Guidance

Low power, Radio LAN type devices (radio frequency (RF) wireless communication devices), operating in the 2.4 GHz Band, may be present (embedded) in your notebook system. The following section is a general overview of considerations while operating a wireless device.

Additional limitations, cautions, and concerns for specific countries are listed in the specific country sections (or country group sections). The wireless devices in your system are only qualified for use in the countries identified by the Radio Approval Marks on the system rating label. If the country you will be using the wireless device in, is not listed, please contact your local Radio Approval agency for requirements. Wireless devices are closely regulated and use may not be allowed.

The RF field strength of the wireless device or devices that may be embedded in your notebook are well below all international RF exposure limits as known at this time. Because the wireless devices (which may be embedded into your notebook) emit less energy than is allowed in radio frequency safety standards and recommendations, manufacturer believes these devices are safe for use. Regardless of the power levels, care should be taken to minimize human contact during normal operation.

As a general guideline, a separation of 20 cm (8 inches) between the wireless device and the body, for use of a wireless device near the body (this does not include extremities) is typical. This device should be used more than 20 cm (8 inches) from the body when wireless devices are on and transmitting. (This Statement is not applicable to UMPC(Ultra Mobile PC) such as PDA, Portable PC.)

This transmitter must not be collocated or operate in conjunction with any other antenna or transmitter except the installed Bluetooth transmitter.

Some circumstances require restrictions on wireless devices. Examples of common restrictions are listed below:



## Caution

- Radio frequency wireless communication can interfere with equipment on commercial aircraft. Current aviation regulations require wireless devices to be turned off while traveling in an airplane.  
802.11B (also known as wireless Ethernet or Wifi) and Bluetooth communication devices are examples of devices that provide wireless communication.
- In environments where the risk of interference to other devices or services is harmful or perceived as harmful, the option to use a wireless device may be restricted or eliminated. Airports, Hospitals, and Oxygen or flammable gas laden atmospheres are limited examples where use of wireless devices may be restricted or eliminated. When in environments where you are uncertain of the sanction to use wireless devices, ask the applicable authority for authorization prior to use or turning on the wireless device.
- Every country has different restrictions on the use of wireless devices. Since your system is equipped with a wireless device, when traveling between countries with your system, check with the local Radio Approval authorities prior to any move or trip for any restrictions on the use of a wireless device in the destination country.
- If your system came equipped with an internal embedded wireless device, do not operate the wireless device unless all covers and shields are in place and the system is fully assembled.
- Wireless devices are not user serviceable. Do not modify them in any way. Modification to a wireless device will void the authorization to use it. Please contact manufacturer for service.
- Only use drivers approved for the country in which the device will be used. See the manufacturer System Restoration Kit, or contact manufacturer Technical Support for additional information.

## United States of America

### USA and Canada Safety Requirements and Notices

Do not touch or move antenna while the unit is transmitting or receiving.

Do not hold any component containing the radio such that the antenna is very close or touching any exposed parts of the body, especially the face or eyes, while transmitting.

Do not operate the radio or attempt to transmit data unless the antenna is connected; if not, the radio may be damaged.

#### Use in specific environments:

The use of wireless devices in hazardous locations is limited by the constraints posed by the safety directors of such environments.

The use of wireless devices on airplanes is governed by the Federal Aviation Administration (FAA).

The use of wireless devices in hospitals is restricted to the limits set forth by each hospital.



**Caution**

#### Explosive Device Proximity Warning

Do not operate a portable transmitter (such as a wireless network device) near unshielded blasting caps or in an explosive environment unless the device has been modified to be qualified for such use.



**Caution**

#### Use On Aircraft Caution

Regulations of the FCC and FAA prohibit airborne operation of radio-frequency wireless devices because their signals could interfere with critical aircraft instruments.

### Other Wireless Devices

#### Safety Notices for Other Devices in the Wireless Network:

**Network:** Refer to the documentation supplied with wireless Ethernet adapters or other devices in the wireless network.



**Caution**

The Part 15 radio device operates on a non-interference basis with other devices operating at this frequency. Any changes or modification to said product not expressly approved by Intel could void the user's authority to operate this device.

### Unintentional Emitter per FCC Part 15

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:(1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.



## Caution

This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions may cause harmful interference which will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet helpful: "Something About Interference."

This is available at FCC local regional offices. Our company is not responsible for any radio or television interference caused by unauthorized modifications of this equipment or the substitution or attachment of connecting cables and equipment other than those specified by our company. The correction will be the responsibility of the user. Use only shielded data cables with this system.

## Intentional emitter per FCC Part 15

Low power, Radio LAN type devices (radio frequency (RF) wireless communication devices), operating in the 2.4 GHz Band, may be present (embedded) in your notebook system. This section is only applicable if these devices are present. Refer to the system label to verify the presence of wireless devices.

Wireless devices that may be in your system are only qualified for use in the United States of America if an FCC ID number is on the system label.

The FCC has set a general guideline of 20 cm (8 inches) separation between the device and the body, for use of a wireless device near the body (this does not include extremities). This device should be used more than 20 cm (8 inches) from the body when wireless devices are on. The power output of the wireless device (or devices), which may be embedded in your notebook, is well below the RF exposure limits as set by the FCC. (This Statement is not applicable to UMPC(Ultra Mobile PC) such as PDA, Portable PC.)

This transmitter must not be collocated or operate in conjunction with any other antenna or transmitter except the installed Bluetooth transmitter.

Operation of this device is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation of the device.



### Caution

Wireless devices are not user serviceable. Do not modify them in any way.

Modification to a wireless device will void the authorization to use it. Contact manufacturer for service.



### Caution

#### FCC Statement for Wireless LAN use:

"While installing and operating this transmitter and antenna combination the radio frequency exposure limit of 1mW/cm<sup>2</sup> may be exceeded at distances close to the antenna installed. Therefore, the user must maintain a minimum distance of 20cm from the antenna at all times.

This device can not be colocated with another transmitter and transmitting antenna." (This Statement is not applicable to UMPC(Ultra Mobile PC) such as PDA, Portable PC.)

The REN is used to determine the quantity of devices which may be connected to telephone line. Excessive RENs on the telephone line may result in the devices not ringing in response to an incoming call. In most, but not all areas, the sum of RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by total RENs, contact the local telephone company to determine the maximum REN for the calling area.

If the terminal equipment causes harm to the telephone network, the Telephone Company will notify you in advance that temporary discontinuance of service may be required. But if advance notice is not practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of the equipment. If this happens, the telephone company will provide advanced notice in order for you to make necessary modifications to maintain uninterrupted service.

If trouble is experienced with this equipment (Modem) for repair or warranty information, please contact your local distributor. If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is resolved.

The user must use the accessories and cables supplied by the manufacturer to get optimum performance from the product.

No repairs may be done by the customer.

## Canada

This equipment cannot be used on public coin phone service provided by the telephone company. Connection to party line service is subject to state tariffs.

The Telephone Consumer Protection Act of 1991 makes it unlawful for any person to use a computer or other electronic device, including fax machines, to send any message unless such message clearly contains in a margin at the top or bottom of each transmitted page or on the first page of the transmission, the date and time it is sent and an identification of the business or other entity, or other individual sending the message and the telephone number of the sending machine or such business, other entity, or individual. (The telephone number provided may not be any number for which charges exceed local or long-distance transmission charges.)

In order to program this information into your fax machine, refer to your communications software user manual.

### Unintentional Emitter per ICES-003

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the radio interference regulations of Industry Canada.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de Classe B prescrites dans le règlement sur le brouillage radioélectrique édicté par Industrie Canada.

### Intentional Emitter per RSS 210

Low power, Radio LAN type devices (radio frequency (RF) wireless communication devices), operating in the 2.4 GHz Band, may be present (embedded) in your notebook system. This section is only applicable if these devices are present. Refer to the system label to verify the presence of wireless devices.

Wireless devices that may be in your system are only qualified for use in Canada if an Industry Canada ID number is on the system label.

As a general guideline, a separation of 20 cm (8 inches) between the wireless device and the body, for use of a wireless device near the body (this does not include extremities) is typical. This device should be used more than 20 cm (8 inches) from the body when wireless devices are on.

The power output of the wireless device (or devices), which may be embedded in your notebook, is well below the RF exposure limits as set by Industry Canada.

This transmitter must not be collocated or operate in conjunction with any other antenna or transmitter except the installed Bluetooth transmitter.

Operation of this device is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation of the device.



#### Caution

To prevent radio interference to licensed service, this device is intended to be operated indoors and away from windows to provide maximum shielding. Equipment (or its transmit antenna) that is installed outdoors is subject to licensing.



#### Caution

Wireless devices are not user serviceable. Do not modify them in any way. Modification to a wireless device will void the authorization to use it. Contact manufacturer for service.

## Telecommunications per DOC notice (for products fitted with an IC-compliant modem)

The Industry Canada label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operation, and safety requirements. The Department does not guarantee the equipment will operate to the users' satisfaction.

Before installing this equipment, users should make sure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. In some cases, the inside wiring associated

with a single-line individual service may be extended by means of a certified connector assembly. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should make sure, for their own protection, that the electrical ground connections of the power utility, telephone lines, and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.



#### Caution

To avoid electrical shock or equipment malfunction do not attempt to make electrical ground connections by yourself. Contact the appropriate inspection authority or an electrician, as appropriate.

The **Ringer Equivalence Number** (REN) assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed 5.

## European Union

### European Union CE Marking and Compliance Notices

Products intended for sale within the European Union are marked with the Conformité Européene (CE) Marking, which indicates compliance with the applicable Directives and European standards and amendments identified below. This equipment also carries the Class 2 identifier. The following information is only applicable to systems labeled with the CE mark .

### European Directives

This Information Technology Equipment has been tested and found to comply with the following European directives:

- **EMC Directive 89/336/EEC with amending directives 92/31/EEC & 93/68/EEC as per**
  - EN 55022 Class B
  - EN 61000-3-2
  - EN 61000-3-3
  - EN 55024
- **Low Voltage Directive (Safety) 73/23/EEC as per EN 60950(A1/A2/A3/A4/A11)**
- **Radio and Telecom Terminal Equipment Directive 1995/EC as per**
  - CTR21 (if fitted with a modem device)
  - ETS 300 328 (if fitted with a 2.4 GHz band embedded wireless device)
  - ETS 301 489-1 (if fitted with a 2.4 GHz band embedded wireless device)
  - ETS 301 489-17 (if fitted with a 2.4 GHz band embedded wireless device)

### European Radio Approval Information (for products fitted with EU-approved radio devices)

This Product is a Notebook computer; low power, Radio LAN type devices (radio frequency (RF) wireless communication devices), operating in the 2.4 GHz band, may be present (embedded) in your notebook system which is intended for home or office use. This section is only applicable if these devices are present. Refer to the system label to verify the presence of wireless devices.

Wireless devices that may be in your system are only qualified for use in the European Union or associated areas if a CE mark  with a Notified Body Registration Number and the Alert Symbol is on the system label.

The power output of the wireless device or devices that may be embedded in you notebook is well below the RF exposure limits as set by the European Commission through the R&TTE directive.



#### Caution

See 802.11b and 802.11g restrictions for specific countries or regions within countries under the heading "European Economic Area Restrictions" below.

## Translated Statements of Compliance

### [English]

This product follows the provisions of the European Directive 1999/5/EC.

### [Danish]

Dette produkt er i overensstemmelse med det europæiske direktiv 1999/5/EC

### [Dutch]

Dit product is in navolging van de bepalingen van Europees Directief 1999/5/EC.

### [Finnish]

Tämä tuote noudattaa EU-direktiivin 1999/5/EC määräyksiä.

### [French]

Ce produit est conforme aux exigences de la Directive Européenne 1999/5/EC.

### [German]

Dieses Produkt entspricht den Bestimmungen der Europäischen Richtlinie 1999/5/EC

### [Greek]

Το προϊόν αυτό πληροί τις προβλέψεις της Ευρωπαϊκής Οδηγίας 1999/5/EC.

### [Icelandic]

Þessi vara stenst reglugerð Evrópska Efnahags Bandalagsins númer 1999/5/EC

### [Italian]

Questo prodotto è conforme alla Direttiva Europea 1999/5/EC.

### [Norwegian]

Dette produktet er i henhold til bestemmelsene i det europeiske direktivet 1999/5/EC.

### [Portuguese]

Este produto cumpre com as normas da Diretiva Européia 1999/5/EC.

### [Spanish]

Este producto cumple con las normas del Directivo Europeo 1999/5/EC.

### [Swedish]

Denna produkt har tillverkats i enlighet med EG-direktiv 1999/5/EC.

## European Economic Area Restrictions

### Local Restriction of 802.11b/802.11g Radio Usage

[Note to integrator: The following statements on local restrictions must be published in all end-user documentation provided with the system or product incorporating the Intel PRO/Wireless 2200BG Network Connection product.]



#### Caution

Due to the fact that the frequencies used by 802.11b/802.11g wireless LAN devices may not yet be harmonized in all countries, 802.11b/802.11g products are designed for use only in specific countries or regions, and are not allowed to be operated in countries or regions other than those of designated use.

As a user of these products, you are responsible for ensuring that the products are used only in the countries or regions for which they were intended and for verifying that they are configured with the correct selection of frequency and channel for the country or region of use. Any deviation from permissible settings and restrictions in the country or region of use could be an infringement of local law and may be punished as such.

The European variant is intended for use throughout the European Economic Area. However, authorization for use is further restricted in particular countries or regions within countries, as follows:

## General

European standards dictate maximum radiated transmit power of 100 mW effective isotropic radiated power (EIRP) and the frequency range 2400 – 2483.5 MHz.

## Belgium

The product may be used outdoors, but for outdoor transmissions over a distance of 300m or more, a license from the BIPT is required.

This restriction should be indicated in the manual as follows:

Dans le cas d'une utilisation privée, à l'extérieur d'un bâtiment, au-dessus d'un espace public, aucun enregistrement n'est nécessaire pour une distance de moins de 300m. Pour une distance supérieure à 300m un enregistrement auprès de l'IBPT est requise. Pour une utilisation publique à l'extérieur de bâtiments, une licence de l'IBPT est requise. Pour les enregistrements et licences, veuillez contacter l'IBPT.

## France

For Metropolitan departments:

2.400 - 2.4835 GHz for indoor use.

2.400 - 2.454 GHz (channels 1 to 7) for outdoor use.

For Guadeloupe, Martinique, St Pierre et Miquelon, Mayotte:

2.400 - 2.4835 GHz for indoor and outdoor use.

For Reunion, Guyane:

2.400 - 2.4835 GHz for indoor use.

2.420 - 2.4835 GHz for outdoor use (channels 5 to 13)

## European Telecommunication Information (for products fitted with EU-approved modems)

Marking by the symbol  indicates compliance of this equipment to the Radio and Telecom Terminal Equipment Directive 1999/5/EC. Such marking is indicative that this equipment meets or exceeds the following technical standards:

CTR 21 - Attachment requirements for pan-European approval for connection to the analogue Public Switched Telephone Networks (PSTNs) of TE (excluding TE supporting voice telephony services) in which network addressing, if provided, is by means of Dual Tone Multi-Frequency (DTMF) signaling.



### Caution

Although this equipment can use either loop disconnect (pulse) or DTMF (tone) signaling, only the performance of the DTMF signaling is subject to regulatory requirements for correct operation.

It is therefore strongly recommended that the equipment is set to use DTMF signaling for access to public or private emergency services. DTMF signaling also provides faster call setup.

This equipment has been approved to Council Decision 98/482/EEC - "CTR 21" for Pan-European single terminal connection to the Public Switched Telephone Network (PSTN).

However, due to differences between the individual PSTNs provided in different countries, the approval does not, of itself, give an unconditional assurance of successful operation on every PSTN termination point. In the event of problems, you should contact manufacturer Technical Support.

# WEEE SYMBOL INFORMATION



## Correct Disposal of This Product (Waste Electrical & Electronic Equipment)

**(Applicable in the European Union and other European countries with separate collection systems)**

This marking shown on the product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract.

This product should not be mixed with other commercial wastes for disposal.

### USA ONLY

This Perchlorate warning applies only to primary CR (Manganese Dioxide) Lithium coin cells in the product sold or distributed ONLY in California USA.

"Perchlorate Material- special handling may apply, See [www.dtsc.ca.gov/hazardouswaste/perchlorate](http://www.dtsc.ca.gov/hazardouswaste/perchlorate)."

 LAMP(S) INSIDE THIS PRODUCT CONTAIN MERCURY AND MUST BE RECYCLED OR DISPOSED OF ACCORDING TO LOCAL, STATE OR FEDERAL LAWS.

For details see [lamprecycle.org](http://lamprecycle.org), [eise.org](http://eise.org), or call 1-800-Samsung.

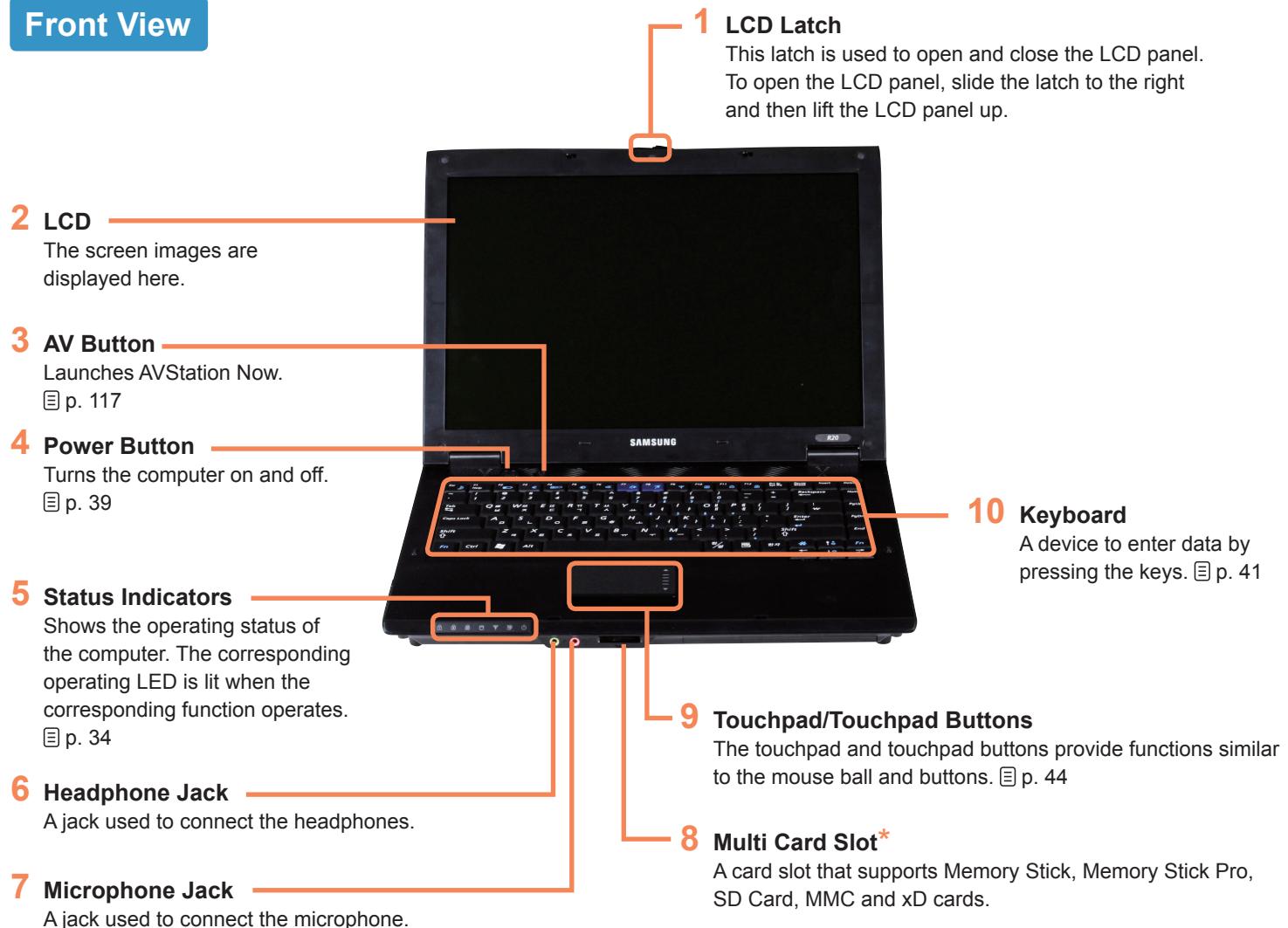
# Overview



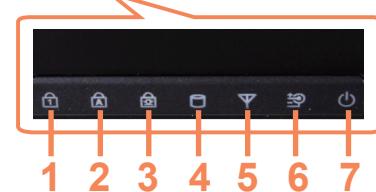
## Before You Start!

- \*The items marked with this symbol are optional items which may be changed or may not be provided depending on the computer model.
- The actual color and appearance of the computer may differ from the pictures used in this guide.

## Front View



## Status Indicators



### 4 HDD

This turns on when the hard disk is being accessed.

### 5 Wireless LAN

This turns on when the wireless LAN is operating.

### 6 Charge Status

This shows the power source and the battery charge status.

**Green:** When the battery is fully charged or the battery is not installed.

**Amber:** When the battery is being charged.

**Off:** When the computer is running on battery power without being connected to AC adapter.

### 7 Power

This shows the computer operating status.

**On :** When the computer is operating

**Blinks:** When the computer is in Sleep mode.

## Right View



### 1 CD Drive(ODD)\*

Plays CD or DVD titles.

Since an ODD drive is optional, the installed drive depends on the computer model. [p. 47](#)

## Left View

### 1 DC Jack

A jack to connect the AC adapter that supplies power to the computer.

### 3 Monitor Port

A port used to connect a monitor, TV or projector supporting a 15pin D-SUB interface. [\[p. 53\]](#)



#### Note

The monitor port color may differ from the actual one.

### 4 Modem Port\*

A port to which a telephone cable is connected to in order to dial up to the Internet.

### 2 Fan Vents

The internal heat of the computer is emitted through these holes.



#### Caution

If the vents are blocked the computer may overheat. Avoid blocking the vents as this may be dangerous.

### 5 Wired LAN Port\*

Connect the Ethernet cable to this port. [\[p. 82\]](#)

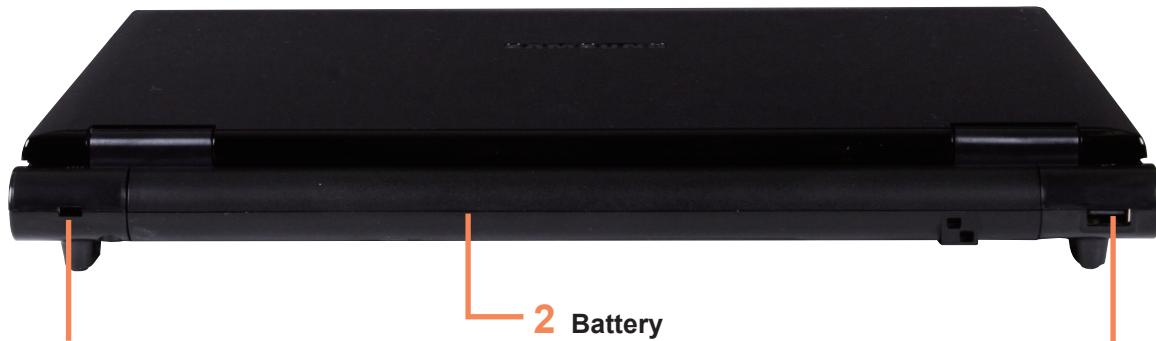
### 7 PCI ExpressCard Slot

Install the PCI Express card into this slot.

### 6 USB Port

You can connect USB devices to the USB port such as a keyboard/mouse, digital camera, etc.

## Back View



### 1 Security Lock Port

You can connect a Kensington lock to the Security Lock Port to prevent the computer from being stolen.

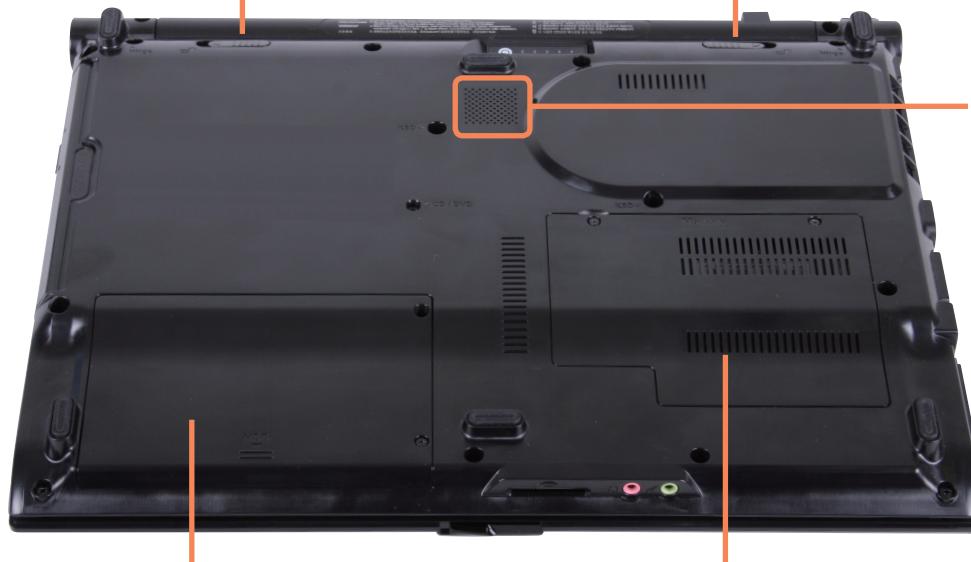
### 2 Battery

This is a Lithium-Ion rechargeable battery that supplies power to the computer. [p. 129](#)

### 3 USB Port

You can connect USB devices to the USB port such as a keyboard/mouse, digital camera, etc.

## Bottom View



### 2 Hard Disk Drive Compartment Cover

The hard disk drive is installed inside the cover.

### 3 Memory Compartment Cover

The main memory is installed inside the cover. [p. 127](#)

### 1 Battery Latches

The latch used to remove or install the battery. [p. 129](#)

### 4 Speaker

A device used to generate sound.

# Turning the Computer On and Off

## Turning the computer on

- 1 Install the **battery** and connect the **AC adapter**.  
(Refer to the **Installation Guide**.)
- 2 Slide the **LCD Latch** to the right and then lift up the LCD panel.
- 3 Press the **Power button** to turn the computer on.

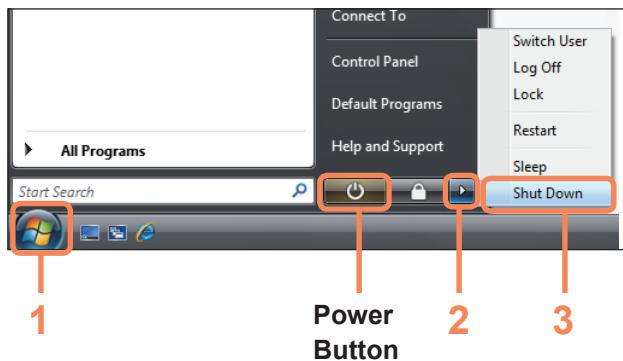


### Note

- If you press and release the Power button on the computer when it is on, the computer enters Sleep mode.
- When running the computer on battery power, the LCD brightness is dimmed automatically to save battery power.  
Press the Fn+ key to increase the LCD brightness. [p. 43](#)
- When turning the computer on for the first time, the Register Windows screen appears. You can use the computer after registering your user information.

## Turning the computer off

- 1 Click the **Start** () button on the taskbar.
- 2 Click the and click on **Shut down**.  
The computer will shut down.



### Note

#### Before Using the Power Button

Since the Power Icon is set to power saving mode, selecting **Start > Power Button** () , will cause the computer to enter **Sleep mode**.

To shut down the computer by clicking this icon, refer to the descriptions for Setting up Start menu power button of the Control Panel. [p. 74](#)



### Caution

When the system cannot be shut down due to a system error, turn it off by pressing and holding the Power Button for longer than 4 seconds.

However, turning the computer off by this method may cause a system problem. Thereafter, when turning the computer back on, the disk checking program may launch to check for and correct any disk errors.

# Chapter 2.

# Using the computer



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# Keyboard



The keyboard is supplied according to the corresponding country. Refer to the keyboard figure for the corresponding country.

## United Kingdom



## United States



## Shortcut Keys

You can use the following functions by pressing the keys below with the **Fn** key.



Fn+	Name	Function
Esc	<b>REST (Sleep Mode)</b>	Switches to Sleep mode. To wake the computer up, press the Power button.
F2	<b>Gauge</b>	Shows the remaining battery charge. You can only use this function when the Easy Display Manager program is installed.
F3	<b>Euro</b>	Enters the Euro monetary unit symbol. This key may not be provided depending on the keyboard type.
F4	<b>CRT/LCD</b>	Switches the screen output to the LCD or external monitor when an external monitor (or TV) is connected to the computer. <a href="#">p. 53</a>
F5	<b>Backlit</b>	Turns the LCD backlight on or off.
F6	<b>Mute</b>	Mutes or cancels mute.
F7	<b>Samsung Magic Doctor</b>	System diagnosis, recovery and Internet consultation program, Samsung Magic Doctor, will be launched.
F8	<b>Easy SpeedUp Manager</b>	You can select operation mode when you need maximum system performance or low-noise/low power consumption with one-click. <ul style="list-style-type: none"><li>■ <b>Silent:</b> Low-noise and low power consumption mode</li><li>■ <b>Normal:</b> Normal Mode</li><li>■ <b>Speed:</b> Maximum performance mode. The system operates in its maximum performance, and system resources are allocated to the currently active program with priority for maximum performance.</li></ul>
F9	<b>Wireless LAN</b>	Turns the wireless LAN function on or off in models with wireless LAN capability.
F10	<b>Touchpad</b>	Turns the Touchpad function on or off. When using an external mouse only, you can turn the Touchpad off.
F11	<b>Num Lock</b>	Turns the numeric keyboard on or off.
F12	<b>Scroll Lock</b>	If you turn the Scroll Lock on, you can scroll the screen up or down without changing the cursor location in some applications.

## Screen Brightness Control

---

To adjust the LCD brightness press the **Fn** + ( ) key combination or the **Fn** + ( ) key combination.  
The changed screen brightness is displayed at the center of the screen for a moment.

## Volume Control

---

To control the volume, press the **Fn** + ( ) key combination or the **Fn** + ( ) key combination.  
You can mute the sound or cancel the mute function by clicking the **Fn** + ( ) key combination.

## Other Function Keys

---

### ■ Application Key

Performs the right-click mouse function (touchpad).

### ■ Internet Explorer Quick Launch Key : (**Fn**+)

Launches Internet Explorer.

## Numeric Key

---

The numbers are printed in blue on the numeric keys.  
If Num Lock is turned on by pressing the **Fn** + () key combination, you can use the numeric keys to enter digits.

# Touchpad

The touchpad provides the same function as a mouse and the left and right buttons of the touchpad plays the role of the left and right buttons of a mouse.



## Before You Start!

- Use the Touchpad with your fingers. Using a sharp object may damage the Touchpad.
- If you touch the Touchpad or press the Touchpad buttons while booting up, the Windows boot time may be extended.

**Touchpad**  
Use to move the cursor.



**Scroll Area**  
Plays the role of the mouse wheel.  
You can scroll up and down using the Scroll Area.

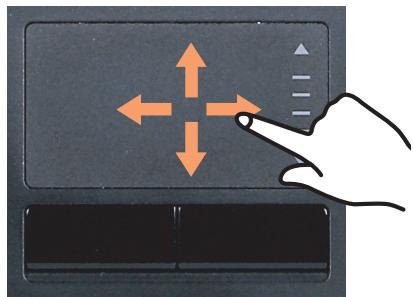
**Touchpad Left Button**  
You can select or run a program using this button.

**Touchpad Right Button**  
Plays the role of the right mouse button.

## Moving the cursor on the screen

---

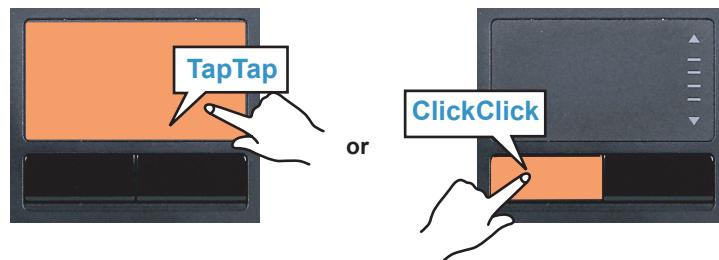
Place your finger on the touchpad slightly and move your finger. The mouse cursor will move accordingly. Move your finger in the direction you wish to move the cursor.



## Double-Click Function

---

Put your finger on the touchpad and quickly tap twice with your finger on an item you want.  
Alternatively, press the left touchpad button twice quickly.

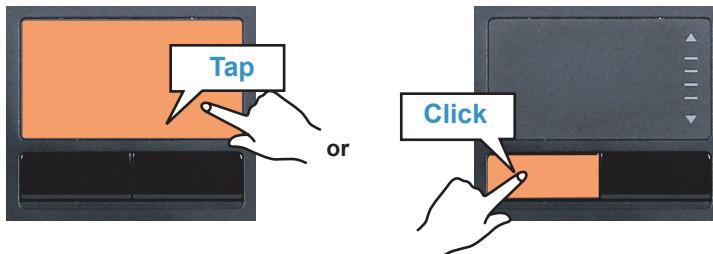


## Click Function

---

Place your finger on the touchpad and tap your finger once over an item you want.

Alternatively, press the left touchpad button once.



## Right Button Function

---

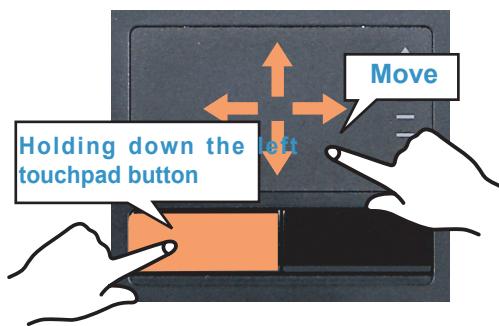
This corresponds to clicking the right mouse button.  
Press the right touchpad button once. The corresponding pop-up menu appears.



## Drag Function

Dragging refers to moving an item to another place after selecting it.

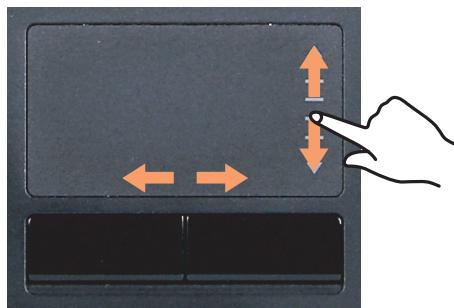
Press and hold down the left touchpad button over an item you want to drag and move the item to the new location.



## Touchpad Scroll Function

The touchpad scroll area provides the mouse wheel function (scroll function).

Place your finger on the touchpad's right edge for vertical scrolling or the bottom edge for horizontal scrolling and then move your finger along the edge to scroll the screen vertically or horizontally.



## Touchpad On/Off Function

If you want to use the mouse only without using the touchpad, you can turn the touchpad off.

To lock the touchpad function, press the **Fn** + ( ) keys.



### Note

You can set the touchpad and touchpad button settings in the tabs that appear when clicking **Start > Control Panel > Hardware and Sound > Mouse**.

# CD Drive

An optical disk drive is optional and may differ depending on your computer model. For detailed specifications, refer to the catalogue.



## Before You Start!

One of the following optical disk drives is installed on this computer.

Drive Type	Function
CD-ROM	Reads CD.
DVD-ROM	Reads CD/DVD.
RW-Combo	You can read CDs and DVDs, and burn a CD.
DVD Super Multi	You can read CDs and DVDs, and burn CDs and DVDs. Supported DVD recording types include DVD±R, DVD±RW, DVD-RAM.

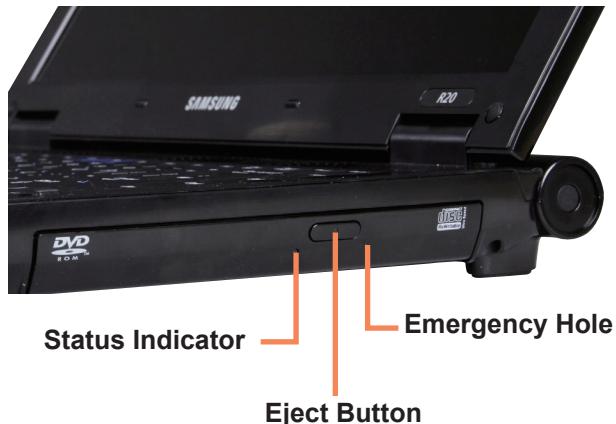


## Caution

- Do not insert a cracked or scratched CD. Otherwise, the CD may break and damage the optical disk drive when the CD rotates at a high speed.
- When you clean a CD or DVD title, wipe with a soft cloth from inside to outside.
- Do not eject a CD when the CD operating LED is on.

## Inserting and Ejecting a CD

- Click the **Eject** button of the optical disk drive at the side of the computer.



**2** When the CD tray pops out, insert a CD or DVD until it clicks.



**3** Push the CD tray inward until it clicks.  
The CD drive status indicator is turned on.



**Note**

- A CD drive's reading and writing speed may differ depending on the condition and type of the media.
- To eject a CD when the CD drive does not work or the computer is off, place the end of a paper clip (—) into the Emergency Hole until the CD tray is ejected.

## Burning a CD

If your computer has a writable CD drive, you can write data onto a CD or DVD or burn an audio CD.

**CyberLink DVD Suite** is supplied with the **System Software Media** (or an additional CD) so that you can burn a CD using the program.

Install the provided software and use the software functions referring to the software help.



# Multi Card Slot

Using the multi card slot, you can read and write data to a Memory Stick, Memory Stick Pro, SD card, MMC and xD card.

You can use a card as a removable disk and conveniently exchange data with digital devices such as a digital camera, digital camcorder, MP3, etc.



## Before You Start!

- A multi card slot is optional and is provided for some models only.
- You have to additionally purchase a multi card with the necessary capacity depending on your requirements.
- You can use a multi card just like any data storage device. A copyright protection function is not supported.
- Since you can lose a card when moving the computer, keep the card separately.

## Supported Cards



Memory Stick



Memory Stick Pro



SD Card



MMC



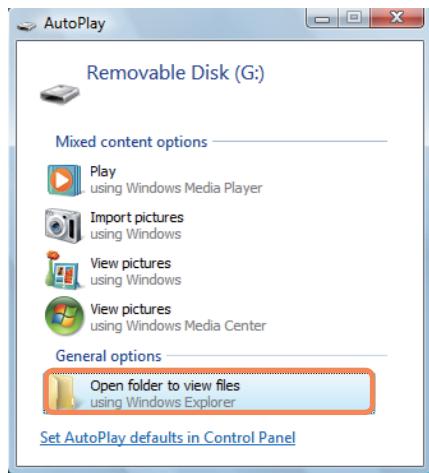
xD Card

## To Insert and Use a Memory Card

- 1** Insert a card into the slot according to the directions printed on the slot.



- 2** The card drive appears. Click **Open folder and view files**. If the window does not appear, click **Start > Computer**.



If a window asking to scan and change appears, click **Continue Without Scanning**. This will proceed to Step 2 above.

- 3** You can save, move and delete data by double-clicking the corresponding drive.



Since you can only use the card after formatting it, if it is not formatted, format the card referring to the descriptions of "Formatting a card". ☐ p. 51



Note

### Using a Memory Stick Duo, Mini SD and RS-MMC

Since the above cards are too small, you cannot insert the cards into the slot directly.

Insert the card into the dedicated adapter (available from most electronic retailers) and then insert the adapter into the multi card slot.

Due to compatibility issues, some adapters may not properly recognize Memory Stick Duo cards, please check with the vendor of the adapter for compatibility issues.

## To remove a memory card

**1** Push the tip of the card lightly.

**2** If the card pops up with a clicking sound, remove the card.



### Caution

To use a card to exchange data with a digital device such as a digital camera, formatting the data using the digital device is recommended.

When you try to use a card, which is formatted in the computer, in another digital device, you may have to format the card again in the device.

## To format a memory card

You have to format a card first to use it.



### Caution

Formatting a card deletes all data saved on the card. If the card includes data, backup the data before formatting it.

**1** Click **Start > Computer**.

**2** Right-click over a card drive with the touchpad and select **Format**.

**3** Click **Start** to the formatting.

# PCI ExpressCard Slot

You can use PCI Express cards using this slot.

The PCI ExpressCard slot can be regarded as the next generation PCMCIA card specification and supports LAN, TV Tuner and Sound cards. This computer's slot supports the Express Card/34 and Express Card/54 specifications.



## Before You Start!

- Remove the dummy card installed to protect the slot first. Lightly push the dummy card of the slot. The dummy card pops up. Eject the dummy card.
- This slot is a PCI ExpressCard slot. You cannot connect a PCMCIA card here.

## To insert a card

- Insert a card into the slot on the side of the computer.



- If you insert a card into the slot, Windows recognizes the card automatically or a message telling you to install a driver appears. If the card is not automatically recognized, install the device driver supplied with the card.



If a window asking whether you want to scan and change appears, click on **Continue Without Scan**. This will proceed to Step 2 above.

## To remove a card

- Double-click the Safely Remove Hardware icon ( ) on the taskbar.
- Select the card to be removed and click **Stop**.
- If the **Stop a Hardware device** window appears, click the **OK** button.
- Push the card in the slot lightly. Then the card pops up.
- Eject the card.

# Connecting a Monitor

Using an external display device is useful when you are giving a presentation or watching a video or movie through your monitor.

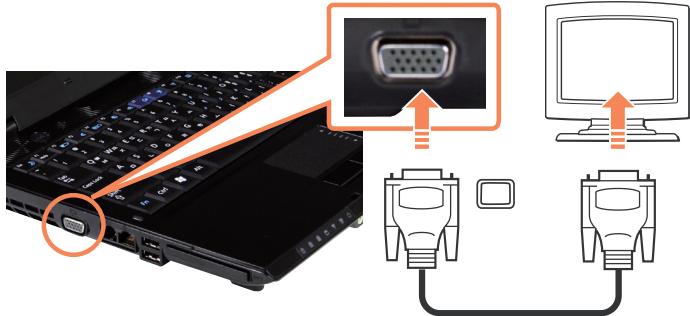


## Before You Start!

You have to buy a connection cable additionally.

## Connecting a Monitor

Connect the monitor to the Monitor port.



## Viewing Through a Monitor

You can switch the display device using the shortcut key.

## Switching the Display Device using the Shortcut Key

Press the **Fn** + key combination once. Then the **Easy Display Manager** screen appears in which you can select a display device.

Whenever you press the key while holding down the **Fn** key, the selected option is changed.



:: LCD+CRT DualView ::

### Example) Selecting LCD+CRT Dual View



#### Note

**LCD:** Notebook Screen

**CRT:** External Monitor Screen

**LCD+CRT Clone :** Notebook+ External Monitor Screen

**LCD+CRT DualView:** Notebook+ External Monitor Screen in Dual View

#### What is Dual View?

Dual View is a function that enables you to view a computer screen over two display devices. It is convenient when you need a wide screen.

# Adjusting the Volume

You can adjust the volume using the keyboard and the volume control program.

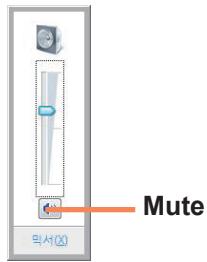
## Adjusting the Volume using the Keyboard

Press the Fn + (↔) key combination or Fn + (↑↓) key combination to adjust the volume.

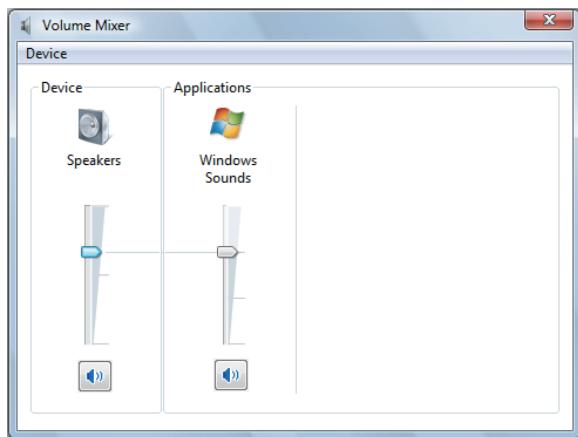
Press the Fn + (✖) key combination to turn the volume on or off.

## Adjusting the Volume using the Volume Adjustment Program

Click the **Volume** icon (🔊) on the taskbar and slide the volume control bar to adjust the volume.



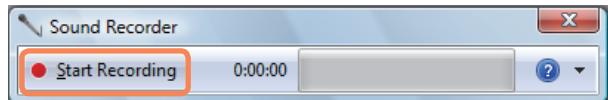
Alternatively, right-click over the **Volume** icon (🔊) and select **Open Volume Mixer** to adjust the volume.



## Using the Sound Recorder

The procedures to record sound using the Windows Recorder are described below.

- 1 Connect a microphone to the microphone jack.
- 2 Right-click over the **Volume** icon (🔊) on the taskbar and select **Recording Device**.
- 3 Check if the microphone is set as the default recording device.  
If this is the case, it is already set as the default device. If not, right-click over the microphone and select **Set default**.
- 4 Click Start > All Programs > Accessories > Sound Recorder and click **Start recording** to start a recording.



## Using EDS

---

The EDS function enables you to experience more stereophonic sound using stereo speakers.

**1** Right-click over the **Volume** icon (LOUD) in the Taskbar and select **Play Device (P)**.

**2** Select **Speaker** in the **Play** tab and click **Properties**.

**3** Select the **Samsung EDS** tab in the Speaker Properties window.

Select the **Enable Samsung EDS (Enhanced Digital Sound)** option.

Select a mode.

Click **OK**. You will be able to experience a more stereophonic sound in the selected mode.



Note

The function is only supported for a computer's built-in speakers and headphones.

# Chapter 3.

# Using Microsoft Windows Vista



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The screen shots used in this chapter may differ from actual screens depending on the Windows Vista version and model.

# About Microsoft Windows Vista

**Microsoft Windows Vista** (hereafter Windows) is a computer operating system. Since you have to learn how to use it in order to use the computer efficiently and effectively, use the **Welcome Center** and **Windows Help and Support** to learn about Windows Vista.



## Note

The screen layout may differ depending on the computer model and the operating system.

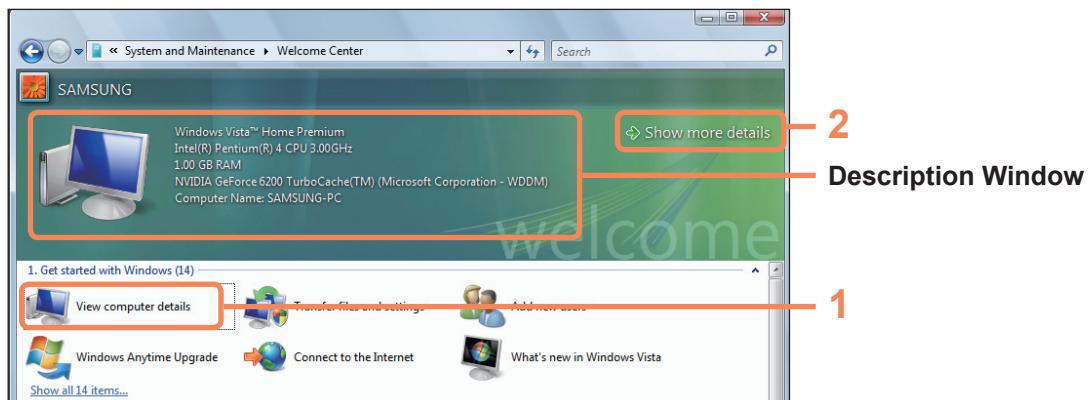
## Welcome Center

In the Welcome Center, you can view brief descriptions of Windows Vista functions and run the functions directly.

**1** Click **Start > Welcome Center**.

**2** If you click on an item, information on the function is displayed in the description window.

For example, if you click **View computer details**, your computer information is displayed in the description window.  
In addition, click on **Show More details**, for more detailed information.



## Note

### Windows Vista Demo

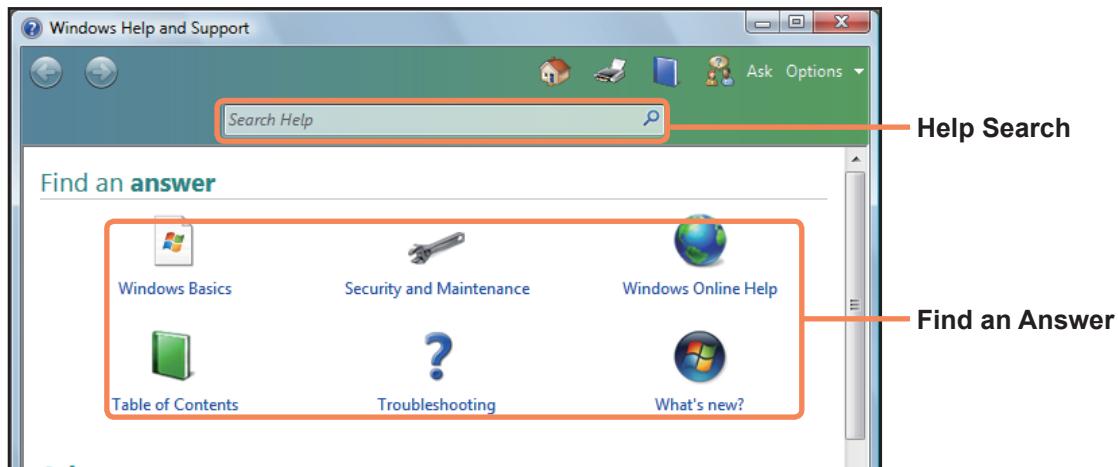
If you click **Start > Welcome Center > Show all x items > Windows Vista Demo**, you can watch the Windows Vista introduction movie.

## Help and Support

Windows Help and Support provides information on Windows basic functions and usages.

Click Start > Help and Support.

You can find help for frequently used basic functions using Find an Answer and you can search for help by entering a keyword in the Search box.



### Windows Basics



Introduces the basic usage of the computer and the Windows operation system.  
You can learn tasks and tools necessary to use the computer.

### Security and Maintenance



You can view help on computer protection and security.

### Windows ONLINE HELP



If your computer is connected to the Internet, you can view the necessary information online.

### Table of Contents



The help pages are arranged by subject so that users can easily find the relevant information.

### Troubleshooting



You can view possible problems that may occur while using Windows and solutions to the problems.

### What's new?



You can view help for new Windows Vista features.

# Windows Vista Screen Layout

## Desktop

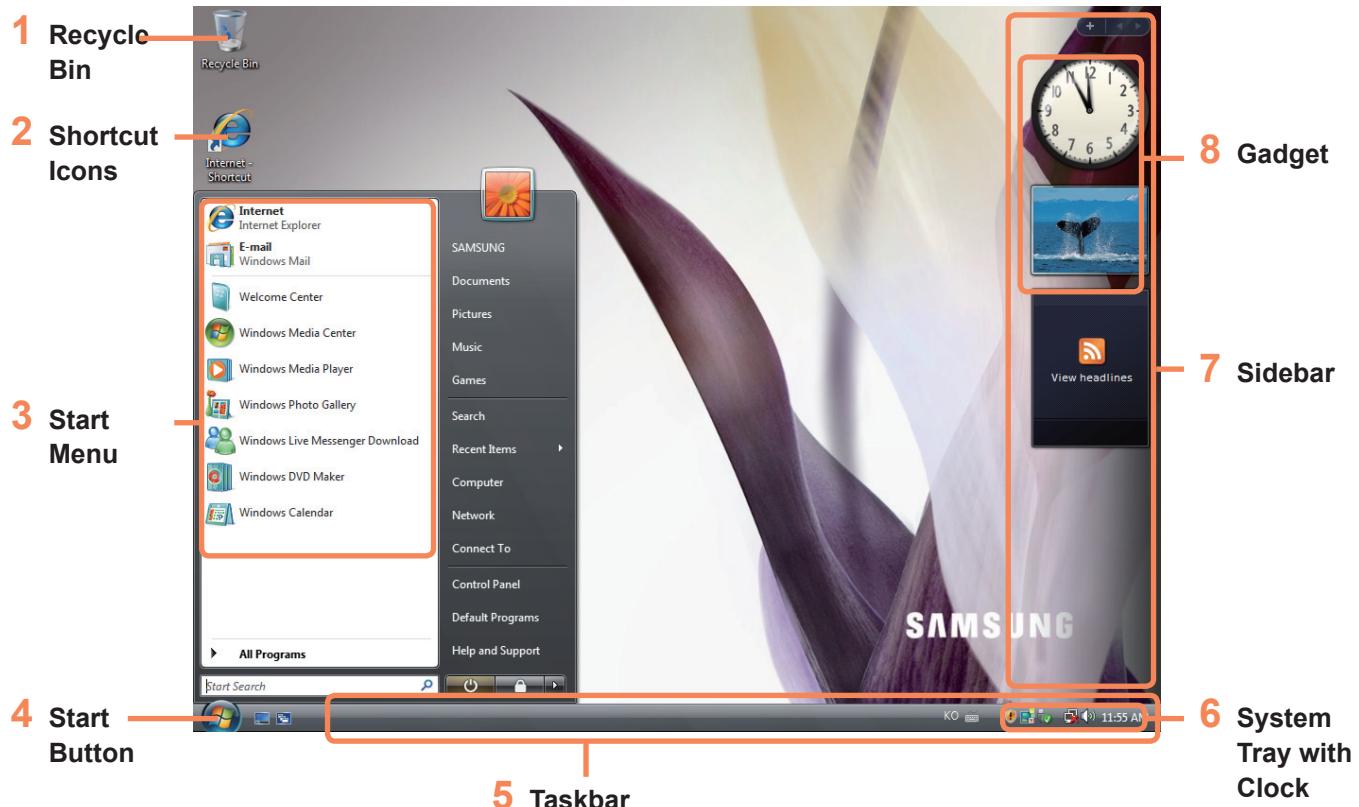
If you turn the computer on, the Desktop screen appears.

The desktop is the working area on the computer. It consists of a large workspace and a taskbar at the bottom as shown in the figure below.



### Note

The screen layout may differ depending on the computer model and the operation system version.



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<b>1</b>	<b>Recycle Bin</b>	You can drop useless files and folders here.
<b>2</b>	<b>Shortcut Icons</b>	You can launch programs by clicking the shortcut icons on the Desktop.
<b>3</b>	<b>Start Menu</b>	The menu from which you can launch programs.
<b>4</b>	<b>Start Button</b>	Press the start button. The Start menu appears.
<b>5</b>	<b>Taskbar</b>	Currently running programs are displayed here.
<b>6</b>	<b>System Tray with Clock</b>	Shows some running program icons. Icons not being used are hidden. If you click the arrow mark on the left, you can view hidden icons. This is a mini information program that appears on the Sidebar.
<b>7</b>	<b>Sidebar</b>	This is a vertical bar that appears at the side of the Desktop.
<b>8</b>	<b>Gadget</b>	This is a mini information program that appears on the Sidebar.

---



**Note**

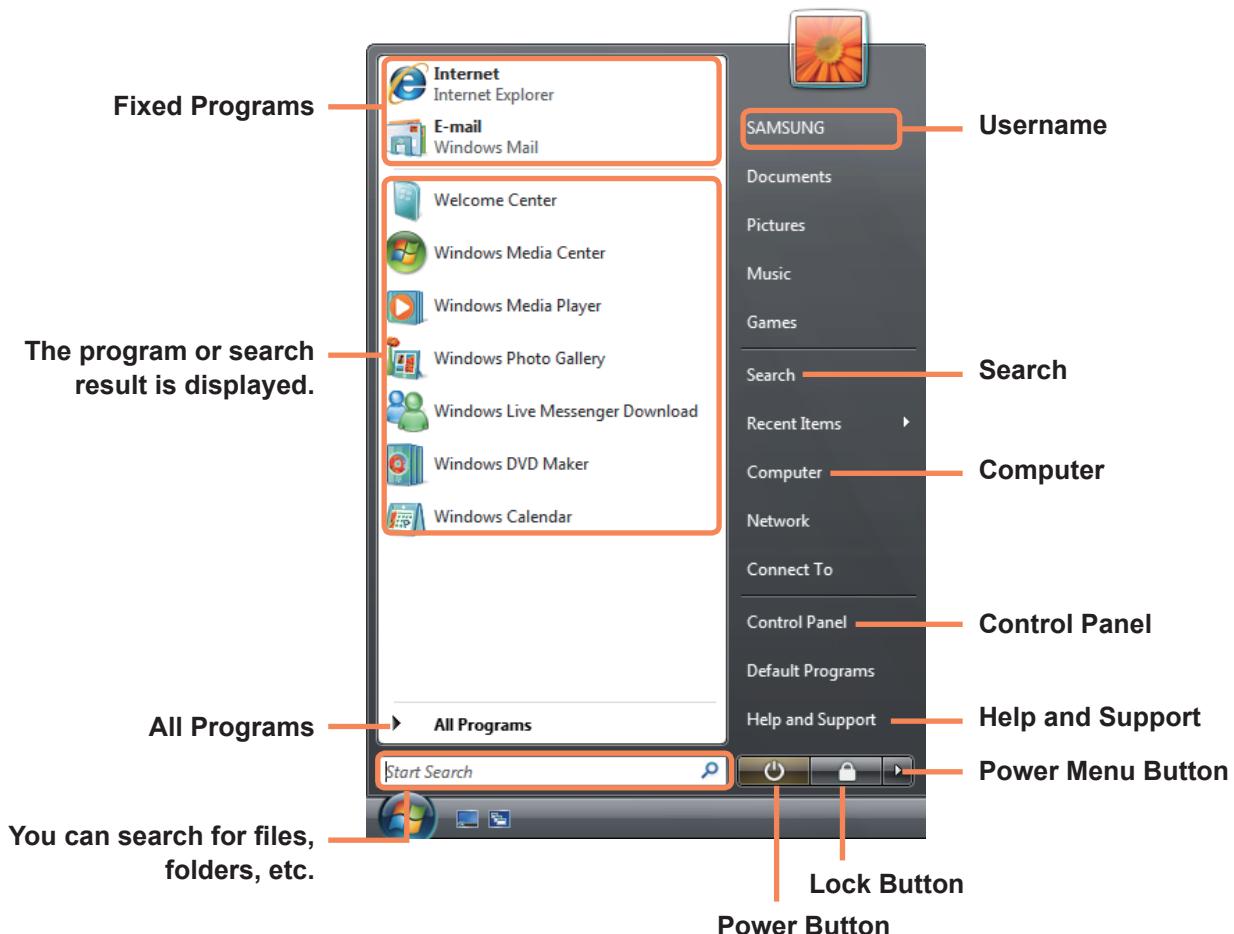
Some items may not be provided depending on the Windows Vista version.

## Start Menu

The menu from which you can launch programs.

Click **Start** (). The Start menu appears.

Alternatively, press the Windows key () on the keyboard.



---

<b>Search</b>		Enables users to search for files and folders.
<b>Computer</b>		Shows storage devices such as hard disk drives, CD/DVD drives, network drives, etc. In addition, you can manage files and folders here.
<b>Control Panel</b>		Enables users to configure the appearance and settings of Windows such as the Desktop, window colors, hardware and software settings, security, etc.
<b>Help and Support</b>		Provides on-line help about functions and usage of Windows and troubleshooting. You can find a solution to a problem by entering a keyword.
<b>Power Button</b>		Click the Power button to enter Sleep mode. However, what the power button does changes according to the power button setting. ☰ p. 74
<b>Lock Button</b>		To lock the computer, click this button. If you lock your computer, no one can use the computer until you enter the password.
<b>Power Menu Button</b>		Click the Power Menu button to shut down, restart, and logoff from the computer.

---

## Sidebar / Gadget

Sidebar is a vertical bar that appears at the side of the Desktop.

A mini program called Gadget runs over the Sidebar which shows information such as stocks, schedule, weather, etc. and provides frequently used tools.

You can download various Gadgets from the Internet other than the default Gadget.

## Sidebar / Gadget Structure

If you launch Windows, the Sidebar is automatically launched and the Sidebar and Gadget appear at the side of the Desktop.



Note

- If the Sidebar is not launched automatically when Windows starts, click **Start > All Programs > Accessories > Windows Sidebar** to launch it manually.
- To always display the Sidebar, right-click over the Sidebar and select **Properties** and then select the **Sidebar is always on top of Screen** option in the **Arrangement** field.

## Adding a Gadget

You can find a gadget in the **Gadget Gallery** and add it to the Sidebar.

- 1** If you click the + at the top of the Sidebar, the Gadget Gallery opens.



- 2** If you double-click on a gadget, the gadget is added to the Sidebar.

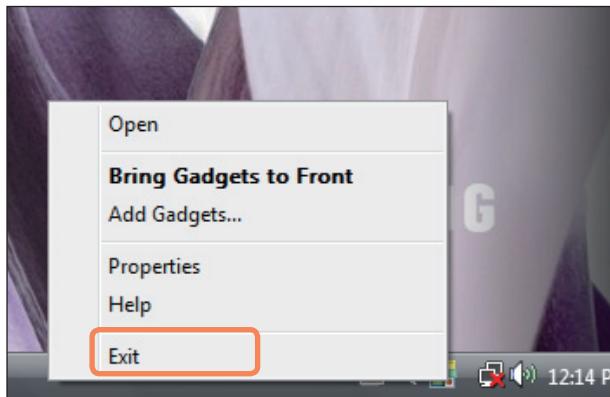


### Note

- You can move a gadget to another location by dragging it with the mouse.  
Not only can you move a gadget onto the Sidebar but also out of the Sidebar.
- If you place the mouse pointer over a gadget, the close and option buttons appear.

## Exiting the Sidebar

Right-click on the Sidebar icon () in the System Tray with the clock on the taskbar and select **Exit** to exit the Sidebar.



### Note

#### Closing the Sidebar

- Even if you close the Sidebar, the Sidebar continues running in the System Tray in the clock area, though it is not displayed on the Desktop.
- To close the Sidebar, right-click over the Sidebar on the Desktop and select **Close Sidebar**.  
To open the Sidebar again, right-click on the Sidebar icon () in the System Tray with the clock on the taskbar and select **Open**.

## Window

A window is the basic frame for a computer operation. As an example, let's see the layout of a **Pictures Window**.

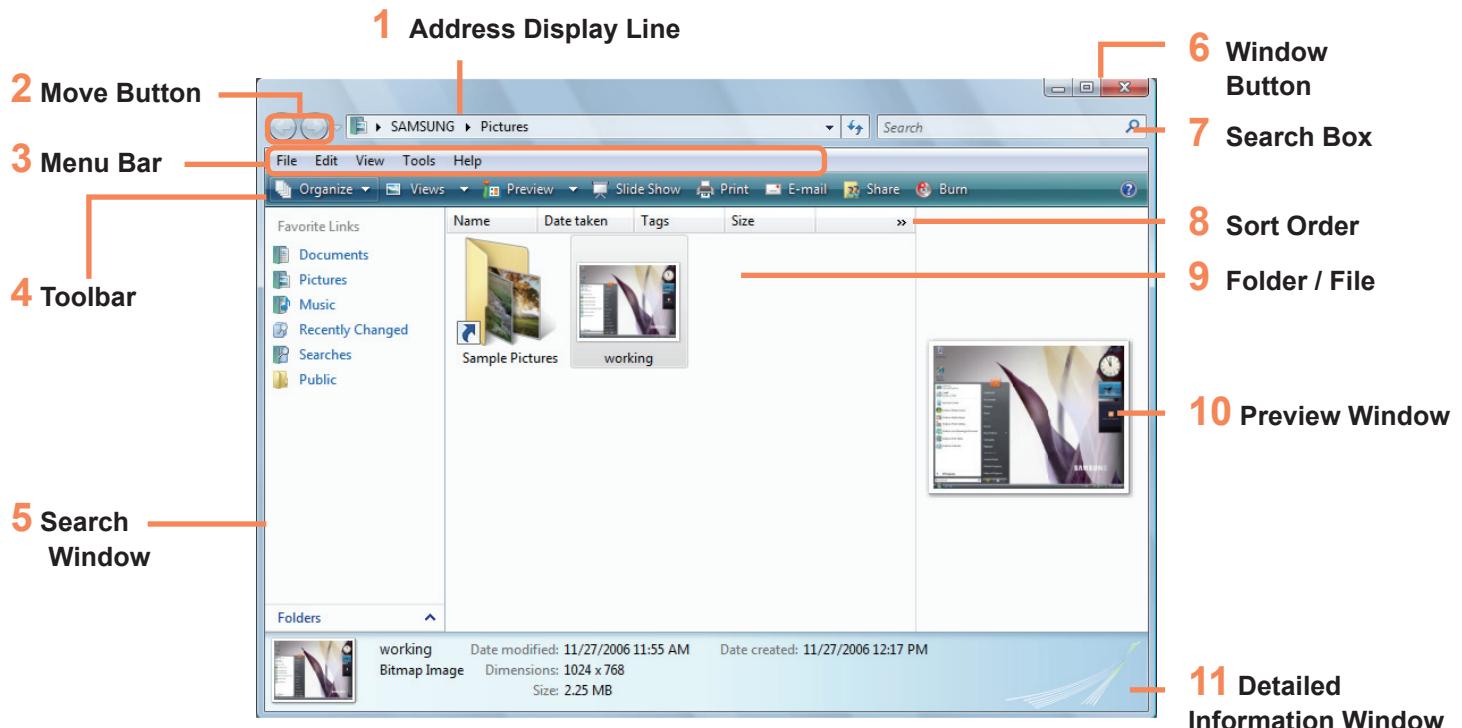
Click **Start > Pictures**.



### Note

The items and names may differ depending on your computer model and the Windows Vista version.

## Window Layout



<b>1 Address Display Line</b>	Shows the location of the currently selected folder or file.
<b>2 Move Button</b>	You can move to the previous or next page by clicking the Back or Next buttons.  Opens the previously opened page.  Opens the next page, when you have returned to a previous page.
<b>3 Menu Bar</b>	Provides menus to run functions for the selected folder or file, etc.
<b>4 Toolbar</b>	Provides icons to quickly run frequently used functions.
<b>5 Search Window</b>	You can view the drive structure and the currently opened window location. You can move directly to a folder by clicking the folder in the Search window.
<b>6 Window Button</b>	Used to resize the window.  Minimizes the window.  Maximizes the window.  Closes the window.
<b>7 Search Box</b>	You can search for files by specifying the text included in the filename or within the file or file attributes.
<b>8 Sort Order</b>	Used to change the sort order of the files.
<b>9 Folder / File</b>	The drives, folders and files included on the computer are displayed here.
<b>10 Preview Window</b>	You can preview a selected file before opening it. A preview function is not provided for drives and folders.
<b>11 Detailed Information Window</b>	Shows the general information of the selected file.



#### Note

- **What is a drive?**  
A storage device on which files and folders are saved to and read from.
- **What is a folder?**  
A folder is used to systematically group and manage files, and may include files in sub-folders.  
It is similar to a filing cabinet.
- **What is a file?**  
A file is a document or various kinds of information generated as a result of a program operation.  
This is also called data.

## Window View Functions



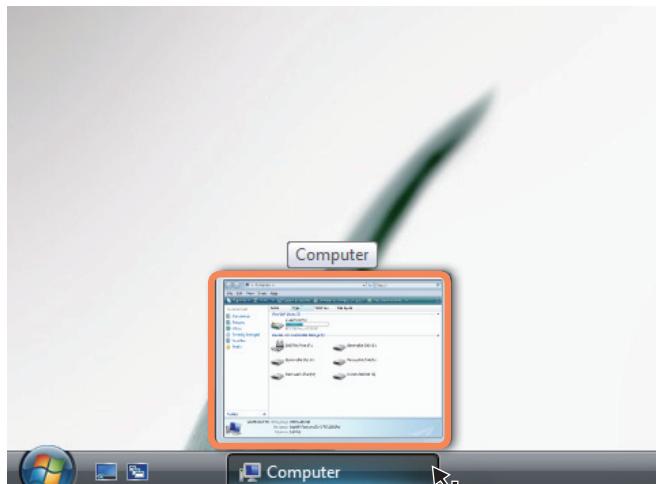
### Note

If you have set up the Aero function, you can use the window view functions.

If you want to use the Aero function, click **Start > Control Panel > Appearance and Personalization > Window Color and Appearance**. Select Window Aero from the color schemes and click OK.

### ► Preview

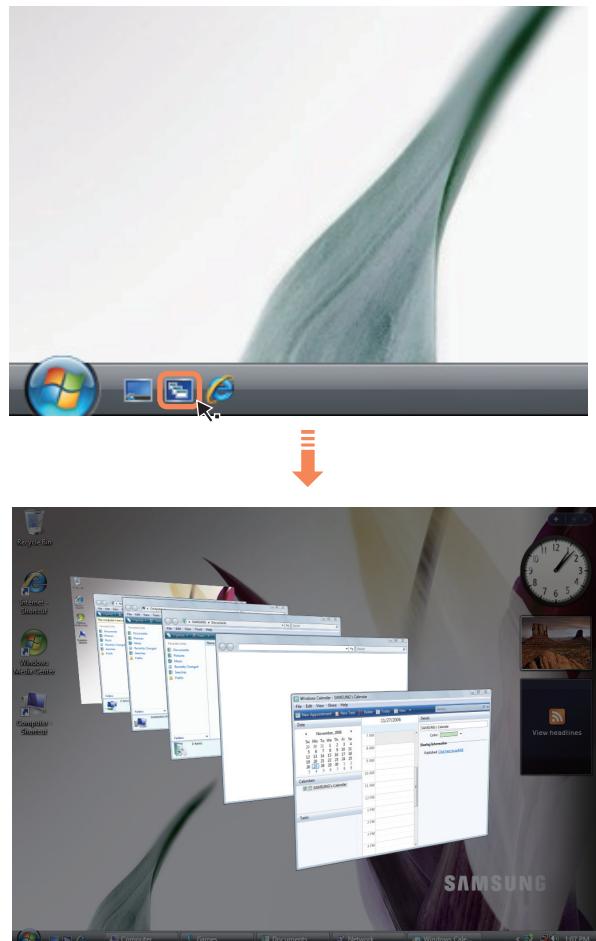
If you move the mouse pointer over a window button on the Taskbar, you can preview the contents of the window without opening it.



### ► Switching between Windows

This function arranges multiple windows in 3D so that users can easily view the windows.

Press the Windows logo ( ) + Tab keys or click on Switch Windows ( ) at the bottom left of the Desktop, and the windows are displayed in 3D.

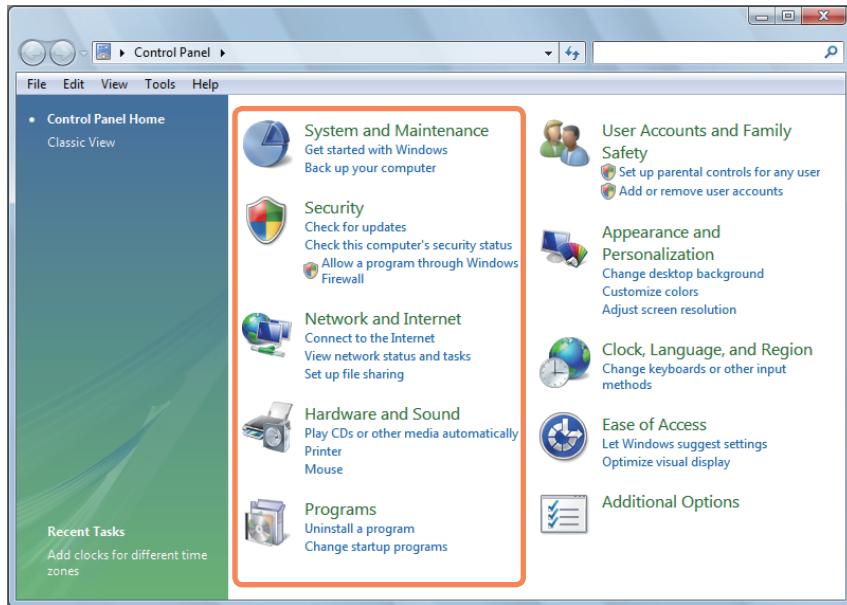


# Control Panel

Tools for configuring Windows are located in the Control Panel.

## Opening the Control Panel

Click Start > Control Panel.



### System and Maintenance



Using this function, you can configure Windows performance options.

### Security



Using this function, you can check the current security status to protect the computer and configure the security settings for the firewall, spyware, etc.

### Network and Internet



Using this function, you can check the network status and configure the settings. You can change the Internet connection settings.

### Hardware and Sound

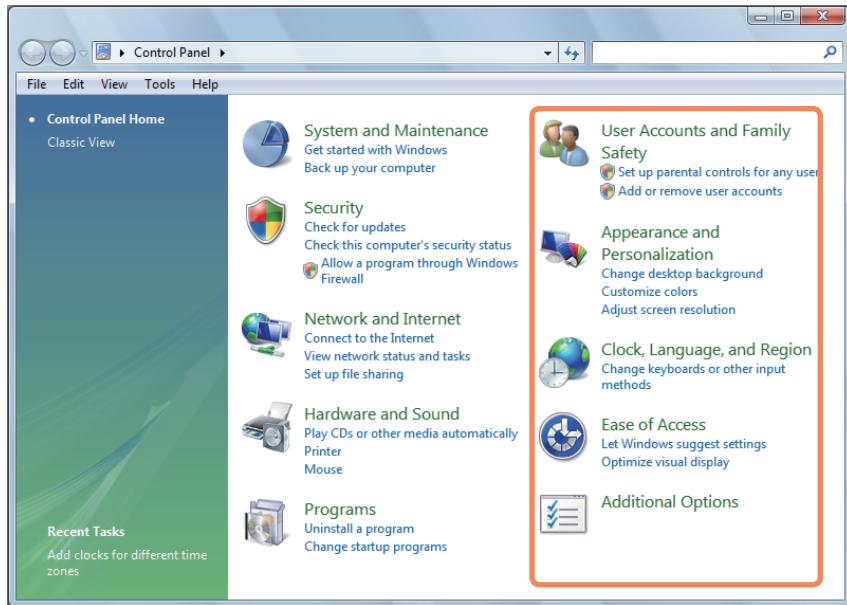


Using this function, you can add a printer and other hardware, change the settings, and update the device drivers.

### Programs



Using this function, you can remove a program or Windows function and download a new program from the internet.



---

## User Accounts and Family Safety



You can change the user account settings, passwords and configure the Parental Controls function.

---

## Appearance and Personalize



Using this function, you can configure the Desktop style, theme or screen saver settings.

---

## Clock, Language, and Region



Using this function, you can configure the date, time, language and regional settings.

---

## Ease of Access



Using this function, you can select options for hearing and sight impaired persons as well as for challenged persons. You can configure the audio recognition settings.

---

## Additional Options



Using this function, you can configure other Control Panel item settings.

---

## User Accounts

Using Windows Vista User Accounts, more than one user can easily share the same PC.

The procedures to add and delete a user account and to switch users are described below.

### Adding User Accounts

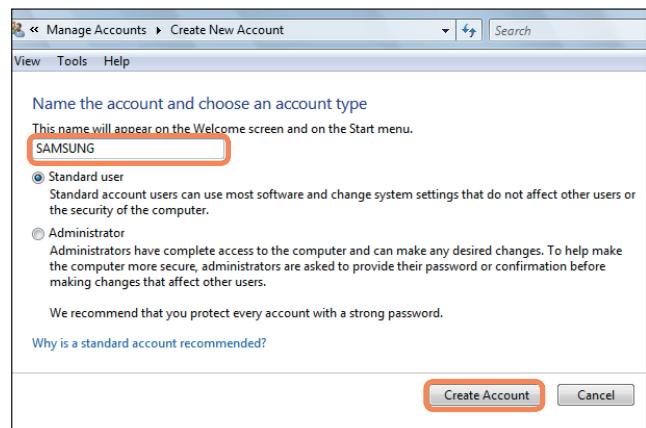
**1** Click Start > Control Panel> User Accounts and Family Safety.

**2** Click User Accounts > Manage another account.

**3** Click Create a new account.

**4** Enter a new **username** and select either Standard User or Administrator.

**5** Click **Create a new account** to add a new account.



## Removing User Accounts



### Note

- If there is only one **administrator account** for the computer, you cannot delete the **administrator account**.
- You can only delete another account when you are logged in as an administrator.

**1** Click Start > Control Panel > User Accounts and Family Safety > User Accounts.

**2** Click Manage Another Account.

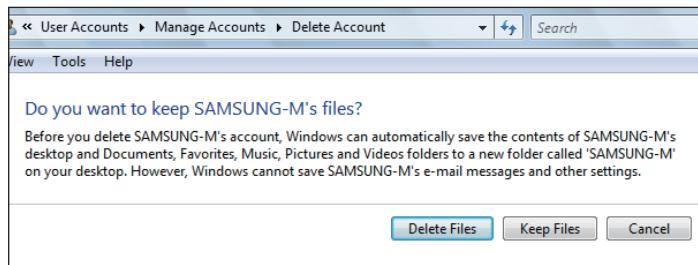
**3** Click on the user account to be deleted.

**4** Click Delete the Account in the Make changes to user's account menu.

**5** A window appears asking whether you want to save the desktop, documents, favorites, music files, pictures and video folders as new folders on the Desktop before deleting the account.

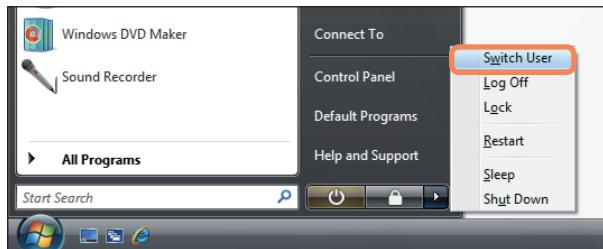
If you click **Delete files**, the account and all files belonging to the account are deleted.

If you click **Keep files**, only the account is deleted and the files belonging to the user are saved on the Desktop.



## Switching User Accounts

**1** Click Start (Switch User.



**2** If you click on another username in the start screen, you can login with that user account.

## Changing the screen resolution and the color

The resolution refers to the number of pixels displayed on the screen. When increasing the resolution, the items on the Desktop become smaller and more items can be displayed on the screen. The higher the color quality, the more colors are displayed on the screen.

**1** Click **Start > Control Panel > Appearance and Personalization > Personalization > Display Settings**.

Alternatively, right-click on the Desktop and select **Personalization > Display Settings** from the pop-up menu.

**2** The Display Settings screen appears.

Change the resolution and color settings and click the **OK** button.



The following resolutions and color qualities are recommended according to the computer LCD panel type.

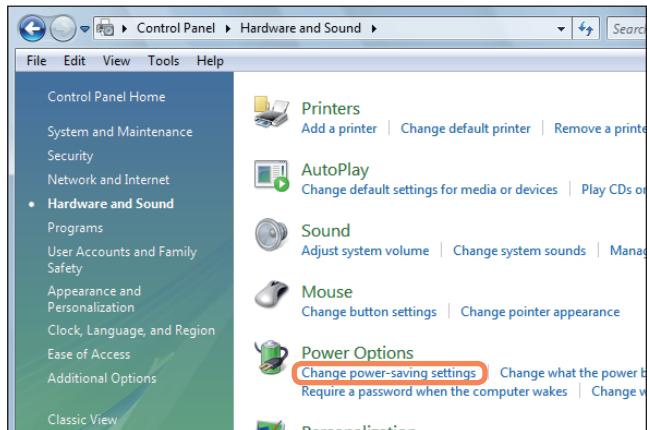


LCD Type	Resolution	Color Quality
WXGA	1280 x 800	Very High (32bit)

## Configuring the Start Menu Power Button

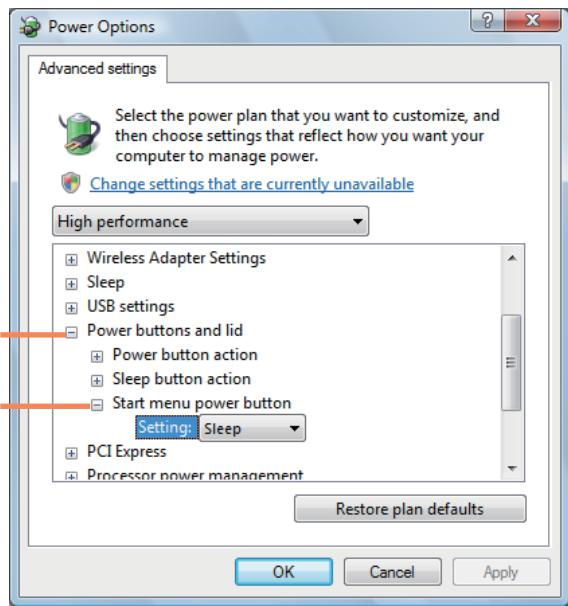
The Power button on the Start menu (  ) performs various operations depending on the settings.

- 1** Click **Start > Control Panel > Hardware and Sound > Power Options** and then **Change Battery Settings**.



- 2** Click on **Change Plan Settings** in the currently selected power setting.

- 3** Click on **Change Advanced Power Settings** and open **Start Menu Power Button** in the **Power Buttons and Lid** item.



## 4 Select a power plan and click the **OK** button.

Type	Description	Power Button Image after Setting Change
Sleep	<p>Sets the computer to enter Sleep mode.</p> <p>The screen and hard disk will be turned off to reduce the power consumption of the overall system.</p> <p>If you press the Power button on the computer, Sleep mode is deactivated and you can start working immediately.</p>	
Hibernate	<p>Sets the computer to hibernate.</p> <p>All work is automatically saved, the screen is turned off and the computer makes no noise. If you press the Power button of the computer main body, the work environment is restored and you can start working immediately.</p>	
Shut down	<p>Shut down the computer.</p> <p>You have to shut down the computer after closing all programs and opened folders.</p>	



### Note

- The Power button is set to Sleep mode by default.
- If the computer is set to download Windows updates automatically, the update mark () is displayed on the Power button when an update is ready.  
If you click this button, the update is installed and the computer is shut down when the update installation is complete.

## Phishing Filter

Phishing is a method used by hackers to illegally collect personal information such as credit card numbers, passwords, other account numbers, etc. through emails or websites.

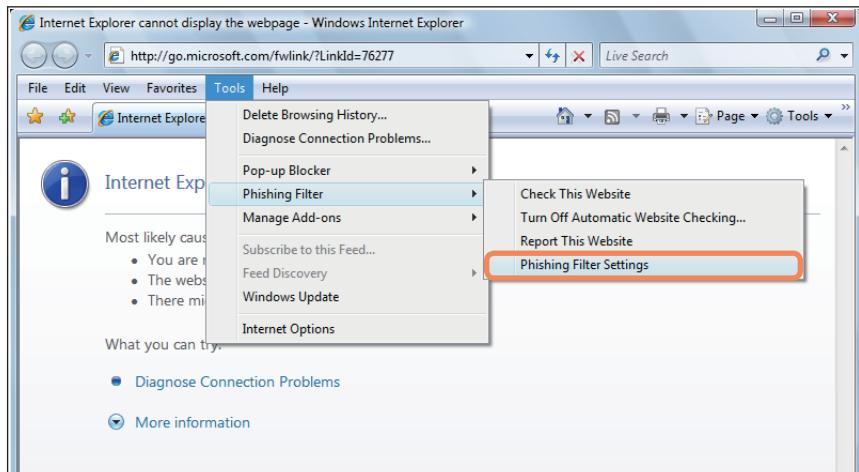
The Phishing Filter protects users from these phishing attempts.

If the current page is judged to be a suspicious website, the Phishing Filter displays a warning message with an alarm when the Phishing Filter is enabled. In addition, if a page that the user is currently trying to open is registered as a known Phishing website list, it displays a warning page instead.

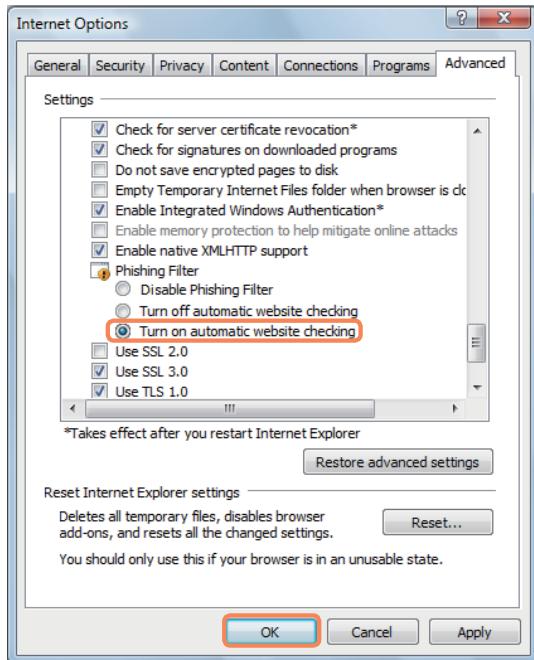
## Phishing Filter Settings

1 Launch Internet Explorer.

2 Select Tools from the menu and click **Phishing Filter > Phishing Filter Settings**.



- 3** The Internet Options window opens.  
Locate the Phishing Filter item in the Settings field. Select **Turn on automatic website checking** and click the **OK** button to use the Phishing Filter.



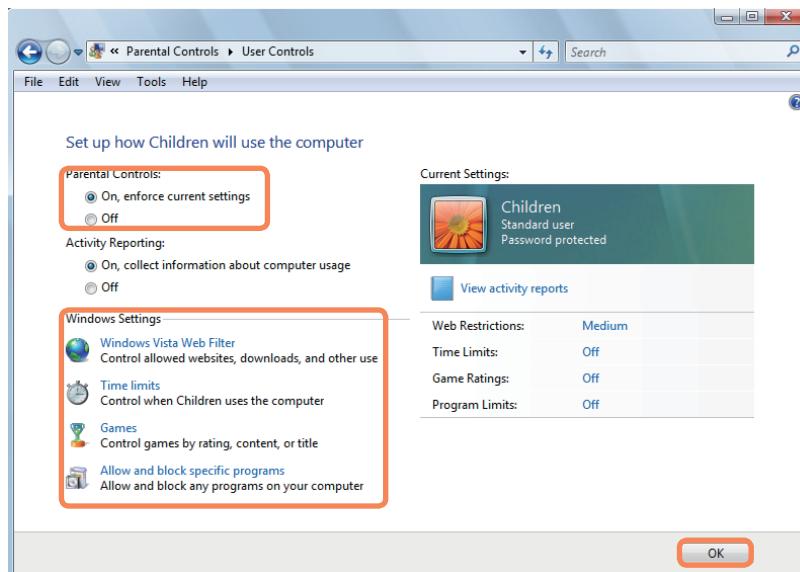
- 4** To not use the Phishing Filter, select **Turn off automatic website checking** in the Settings field in Step 3 above.

## User control function

Using this function, you can control the content your children can access. You can determine for how long they can use the computer and the content they can access. When you have finished the settings, click OK to finish.

### Configuring Parental Controls

- 1** Click Start > Control Panel > User Accounts and Family Safety > Parental Controls.
- 2** Select a user to configure the Parental Controls for.  
The **User Controls** window for that user opens.
- 3** Click **Parental Controls > Use** and configure the necessary settings in the **Windows Settings** at the bottom. If you click **OK**, the Parental Controls setting is completed.

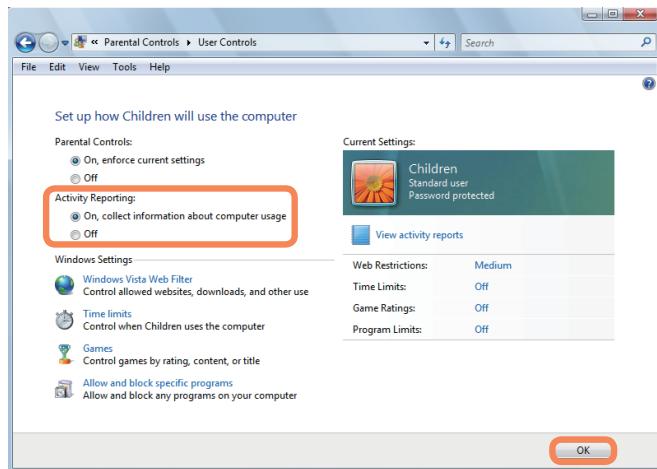


## Using Activity Report

You can view and evaluate your children's internet access through the Activity Report.

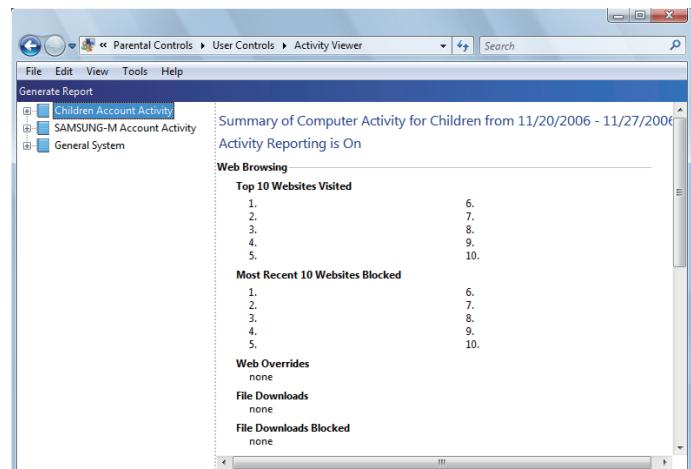
**1** Open the **User Controls** window referring to the descriptions of **Parental Controls**.

**2** Set **Activity Reporting** to On.



**3** To view the Activity Report, click on **View Activity Report** on the right of the **User Controls** window.

**4** If you click the **View Activity Report**, the following window opens displaying a computer operating summary.



## Windows Mobile Center

Using Windows Mobile Center, you can easily configure computer settings such as the volume, the wireless network connection settings, the display settings, etc. all at the same time.

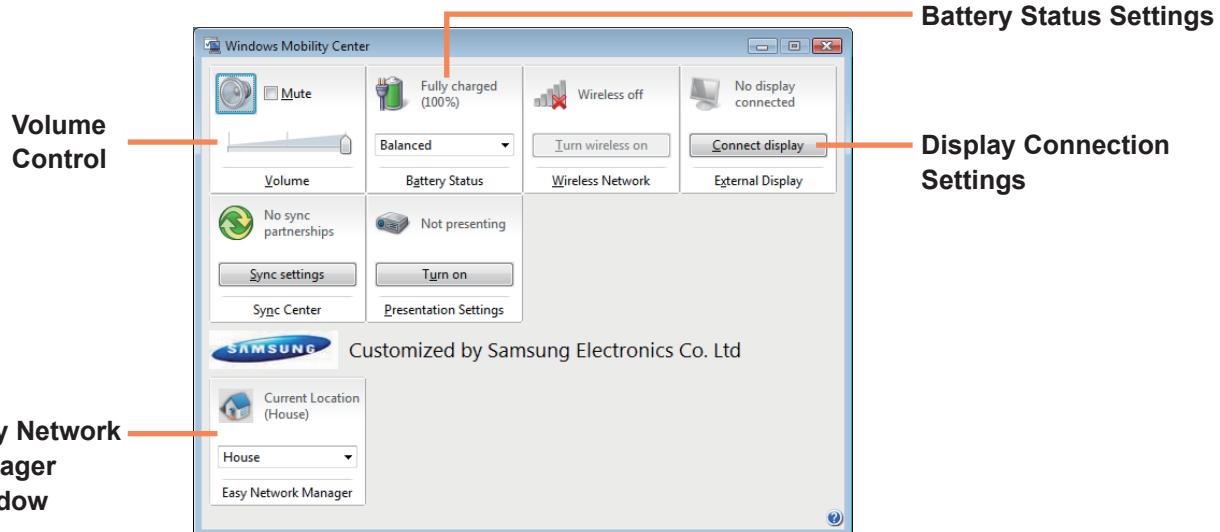


Some functions may not be supported depending on the Windows Vista version.

### Note

**1** Click **Start > All Programs > Accessories > Windows Mobile Center**.

Alternatively, click **Start > Control Panel > Mobile PC > Windows Mobile Center**.



**2** Configure the volume, the battery status, the external display, the Sync center, etc. according to your requirements.



### Note

- Configurable items may differ depending on the installed Windows Vista version or programs.
- If Easy Network Manager program is installed, you can see Easy Network Manager window.
- If you turn the wireless LAN off in the Mobile Center, this is not reflected by the wireless LAN LED.

# Chapter 4.

# Using the Network



<b>Wired Network</b>	<b>82</b>
<b>Wireless Network</b>	<b>85</b>
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Diagnosing the Network Status	90
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Bluetooth Function	92
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# Wired Network

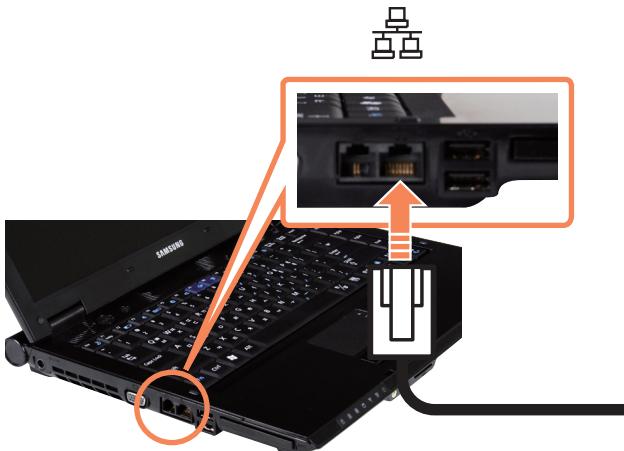
A wired network is a network environment used for a company network or broadband internet connection at home.



## Before You Start!

You can also configure the network settings using the Easy Network Manager. ☰ p. 87

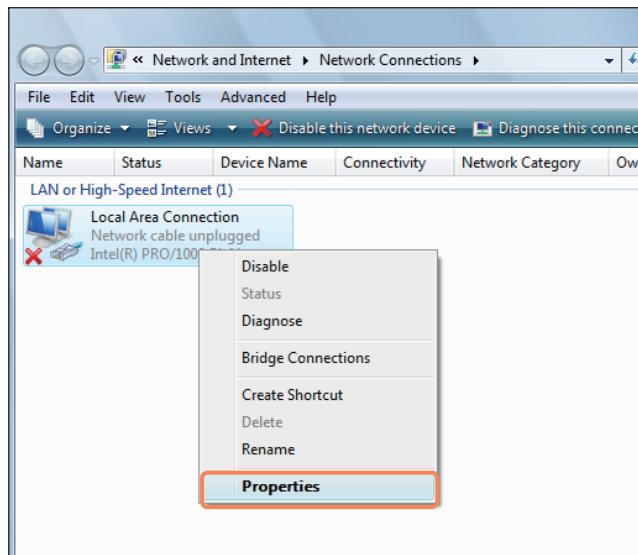
- 1** Connect a LAN cable to the computer's LAN port.



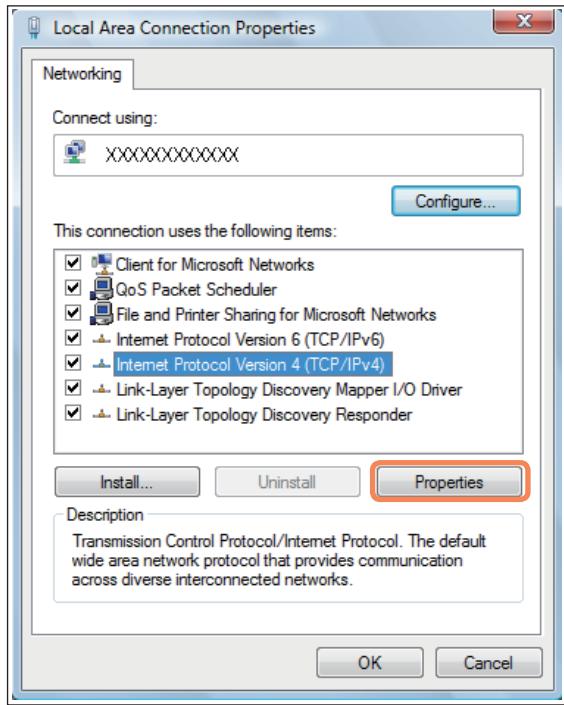
- 2** Click **Start > Control Panel > Network and Internet > Network and Sharing Center**.

- 3** Click **Manage Network Connections** from the left pane.

- 4** Right-click over the **Local Area Connection** and select **Properties**.



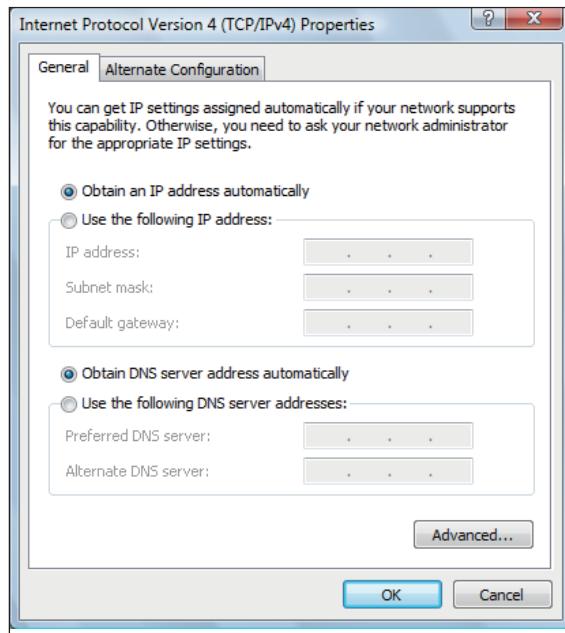
**5** Select **Internet Protocol Version 4 (TCP/IPv4)** from the **Networking** tab and click **Properties**.



**Note**

- The LAN device driver may differ depending on your LAN device model.
- To add a network component, click **Install** in the screen shown in the figure above. You can add clients, services, and protocols.

**6** Configure the IP settings.  
When using DHCP, select **Obtain an IP address automatically**. To use a static IP address, select **Use the following IP address**, and set the IP address manually.



**Note**

When not using DHCP, ask your network administrator for the IP address.

**7** When you have completed the settings, click the **OK** button.  
The network settings have been completed.

## Using both DHCP and a fixed IP simultaneously

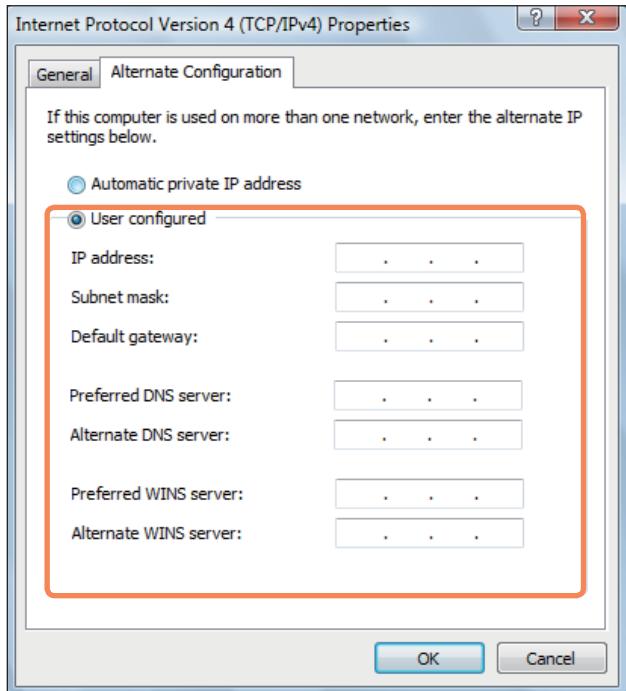
Using the **Alternate Configuration** providing by Windows Vista, you can set both automatic and fixed IP addresses and then you can select to use either of them to connect to the Internet.

**1** Click **Start > Control Panel > Network and Internet > Network and Sharing Center** and click **Manage Network Connections** in the left pane.

**2** Right-click over the **Local Area Connection** and select **Properties**.

**3** Select **Internet Protocol Version 4 (TCP/IPv4)** from the **Networking tab** and select **Properties**.

**4** Select the **Alternate Configuration** tab, select **User configured** and fill in the corresponding fields.



**5** When you have completed the settings, click the **OK** button.

# Wireless Network

A wireless network (Wireless LAN) environment is a network environment that enables communicating between multiple computers at home or a small-size office through wireless LAN devices.



## Before You Start!

- The descriptions below are for computer models with a Wireless LAN card or device. You can also configure the wireless network settings using the Easy Network Manager. [p. 87](#)
- A Wireless LAN device is optional. To view the installed wireless LAN card, click **Start > Control Panel > Hardware and Sound > Device Manager > Network Adapter** and click the + symbol.
- The figures in this manual may differ from the actual ones depending on your wireless LAN device model.
- To use the wireless LAN, you have to turn the wireless LAN on first by pressing the **Fn + (W)** keys. If the wireless LAN is turned on, the **Wireless LAN LED** ( ) is lit.

## Wireless LAN Connections

Wireless network connections can be classified into 3 categories and this manual describes the connection procedures for connecting through an AP.

### ■ Access Point (AP)

You can connect to the Internet or another computer on the network through an AP.



Note

#### What is an Access Point (AP)?

An AP is a network device that bridges wired and wireless LANs, and corresponds to a wireless hub in a wired network. You can connect multiple wireless LAN installed computers to an AP.

### ■ Wireless Ad-Hoc Network Type

This connects computers with wireless LAN communications capability.

Communication is enabled by constructing an Ad-Hoc network via one computer and connecting another computer through a wireless connection.

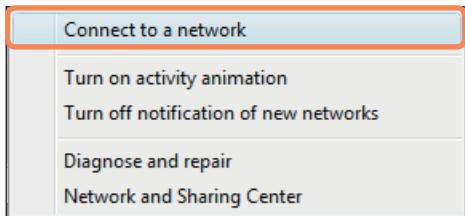
For more detailed connection procedures, refer to the descriptions that appear when selecting **Start > Help and Support > Contents > Networking - Computer and Device Connection > Network Setting > Ad-Hoc Network Setting**.

When you use Ad-Hoc, you have to change the McAfee Firewall settings. [p. 168](#)

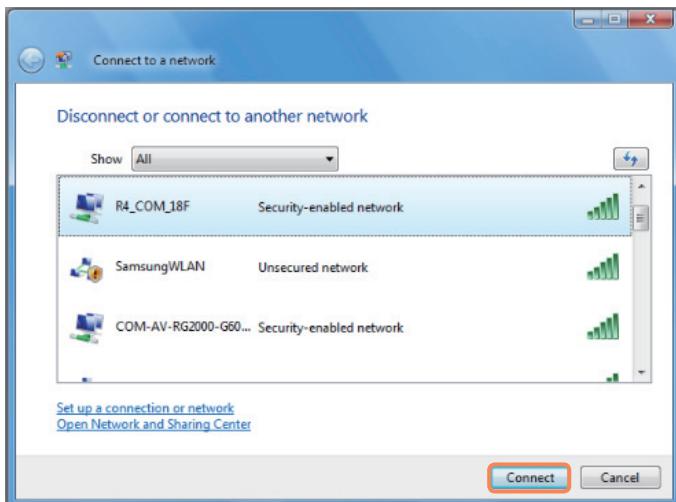
## Connecting to a Wireless LAN

If there is an AP, you can connect to the Internet via the AP using the Wireless LAN connection method provided by Windows Vista.

- 1 Right-click over the **Network Connections** (Wi-Fi) icon on the taskbar and click **Connect to the Network**.



- 2 Select an AP to connect to and click **Connect**. If there is a configured network key for the AP to connect to, the Enter Network Key window appears. Enter the network key in the window and then click the **Connect** button.



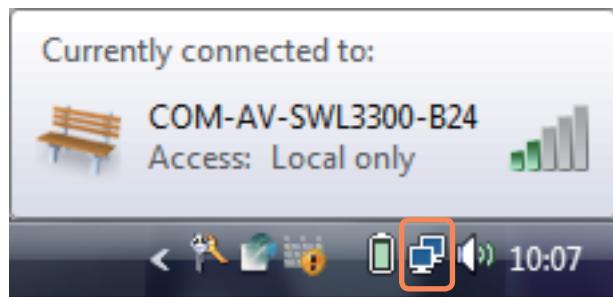
 Ask your network administrator for the network key, if necessary.

- 3 When **Connected** to the AP is displayed, click the **Close** button.

You can access the network.

## Checking the network connection status

Move the mouse pointer over the **Wireless Network Connection** (Wi-Fi) icon on the taskbar, and the connection status is displayed.



# Using the Easy Network Manager

Easy Network Manager is a program that helps configure the network settings.

Easy Network Manager provides the following features.

- **You can easily configure the network and printer settings.** ☐ p. 87~88
- **You can immediately use the network without having to define new network settings again after moving to another location.** ☐ p. 89  
By configuring the network settings (IP address, printer settings, etc.) for each location, you can immediately access the network without following the network setting procedures each time regardless of your location.
- **You can diagnose the network status.** ☐ p. 90

## Network Settings

This section describes the procedures to connect to the Internet by setting up a network. The setting up procedures include procedures to add a printer to the network.

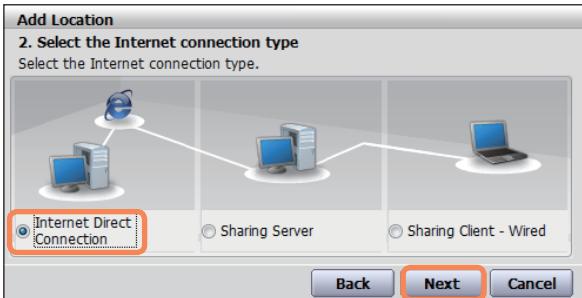
**1** To use a wired LAN, connect the LAN cable to the LAN port. To use the wireless LAN, you have to turn the wireless LAN on first by pressing the **Fn +** ( ) keys. If the wireless LAN is turned on, the **Wireless LAN LED** lights up.

**2** Click Start > All Programs > Samsung > Easy Network Manager > Easy Network Manager.

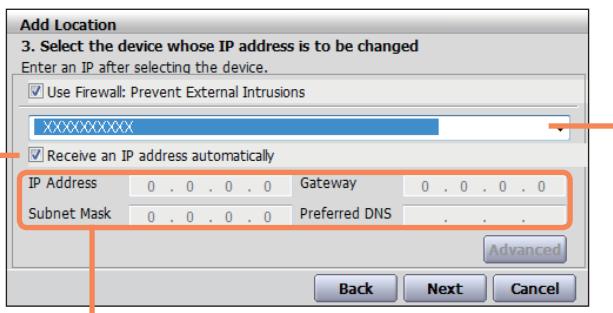
**3** Click the **Add** button.

**4** Select a network location icon and enter the name of the location (e.g. Home). Click the **Next** button.

**5** Select Internet Direct Connection and click the **Next** button.



**6** Select the LAN device, setup the IP address and click the **Next** button.



#### IP Settings

To use a static IP address, fill in the fields. For the IP address information, ask your network administrator.

#### Obtain an IP address automatically

Select DHCP to use this option (automatic IP setting).

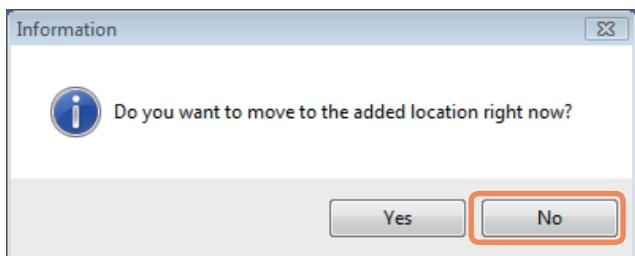
**7** Click **Add Printer** and set up a printer according to the wizard. When the printer has been added, click the **Refresh** button, select the newly added printer and then click the **Finish** button.



To not add a printer, click the **Finish** button.

#### Note

**8** When the network settings are complete, the '**Do you want to move to the newly added location now?**' message appears. Click the **No** button. An icon for the added location is created. The network settings have been completed. If you select '**Yes**', the network settings for the added location are applied.



To add a new location, repeat the procedures from Step 3 above.

#### Note

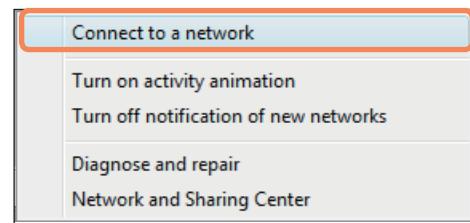
## Using in Another Location

By configuring the network settings (IP address, printer setting, etc.) for each location, you can immediately access the network in one click, without performing the network setting procedures regardless of your location.

- 1** Click **Start > All Programs > Samsung > Easy Network Manager > Easy Network Manager** when connected to the Internet.
  
- 2** Select an icon that represents the corresponding location from the Saved Locations window and then click **Move**.
  
- 3** If the Internet connection is a wired LAN, you can immediately load the settings for the new location and the corresponding network connection information is displayed in the Current Location Information window.

If the Internet connection is a wireless LAN, you have to select an AP as follows.

- 1** Click on the **Network connection** () icon on the Taskbar using the touchpad and select **Connect to the Network**.



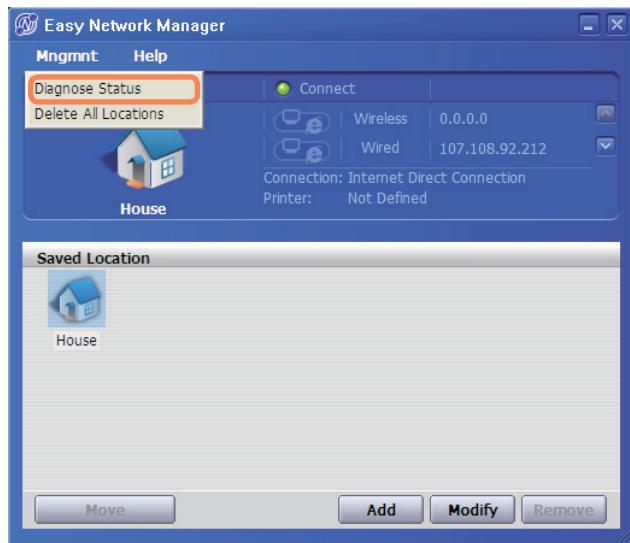
- 2** Select an available AP and click the **Connect** button. If a network key is required, ask your network administrator for the key information.

## Diagnosing the Network Status

You can diagnose the network state and find solutions for why you cannot connect to the network.

**1** Launch Easy Network Manager.

**2** Select **Management > Diagnose Status** from the menu.



**3** The Network Connections window appears. Click **Start** to start the network diagnosis.

**4** When the diagnosis is complete, a device with a problem is marked by an exclamation mark icon with a description of the problem at the bottom of the window.

# Connecting with a Modem

The procedures to connect to the Internet via a phone connection are described below.

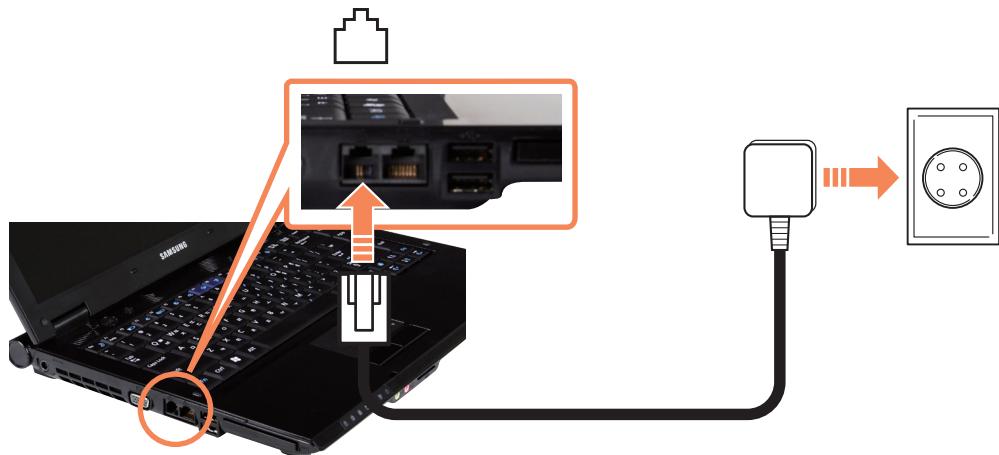


## Before You Start!

- To connect to the Internet, you have to subscribe to an Internet connection service of an Internet service provider (ISP).
- A modem port is optional and provided for some models only.

**1** Connect the phone cable to the Modem port.

Take care to not connect a digital phone line to the modem port.



**2** Connect to the Internet according to the instructions of your Internet service provider (ISP).



### Note

If the Internet connection is terminated abnormally, the connection is not released and the corresponding cost can be accrued.

# Bluetooth (Optional)

Bluetooth is wireless communications technology that allows access to nearby devices such as another computer, a cell phone, printer, keyboard, mouse, etc. without a cable connection. Using Bluetooth, you can exchange files, connect to the Internet, and construct a private network as well as communicate with a keyboard, mouse, printer, etc. without a cable connection.



## Before You Start!

- The Bluetooth supporting function is only available between devices (a computer, cell phone, PDA, printer, etc.) and the connection may be restricted according to the profile of the corresponding device.
- The Bluetooth function is optional and may not be supported depending on your model.
- Compatibility to devices without the authentication or logo of Bluetooth is not guaranteed.

## Bluetooth Function

### File Transmission



You can exchange files between two Bluetooth devices.

### Network Access through a Phone Connection



You can connect to another Bluetooth-installed computer in the same way as an Ad-Hoc mode in wireless LAN and connect to the network via an AP or an Internet connection sharing server.

### Data Sync (Synchronization)



You can synchronize PIMS data (Outlook E-mail address data) with Bluetooth devices such as a cell phone, PDA, another notebook computer, etc.

### Electronic Business Card (Vcard) Exchange



You can exchange business cards with Bluetooth devices such as a cell phone, PDA, another notebook computer, etc.

### Sound Output



You can output computer sound to another Bluetooth device or vice versa.

### HID Connections



You can connect and use Bluetooth peripherals such as a keyboard, mouse, joystick, etc.



For more information about using the Bluetooth function, refer to the online help of the Bluetooth Device.

### Note

## Using Bluetooth

The procedures to exchange files between computers supporting Bluetooth and to use other Bluetooth devices are described below.

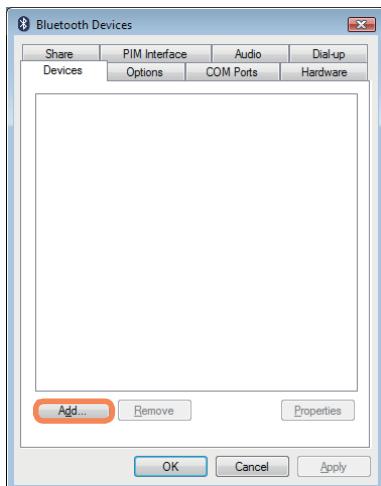
### Using Bluetooth Devices (Connecting Headset supporting Bluetooth)

As an example, the procedures to connect to a headset supporting Bluetooth will be described below. Searching for Bluetooth devices corresponds to Steps 1 to 4 and may be slightly different depending on the device.

- 1 To connect to another device via Bluetooth, double-click the Bluetooth icon () on the Taskbar.



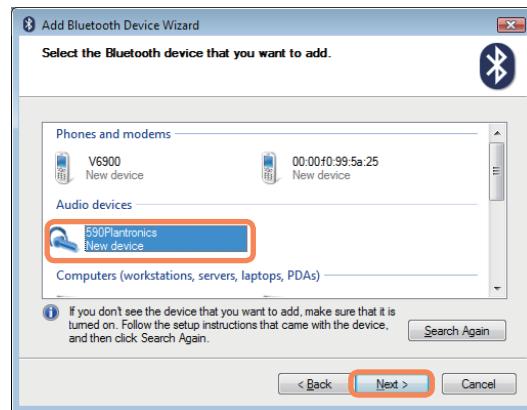
- 2 If the Bluetooth Device window appears, click Add.



- 3 If the Add Bluetooth Device Wizard screen appears, select the **My device is set up and ready to be found** and click the **Next** button.



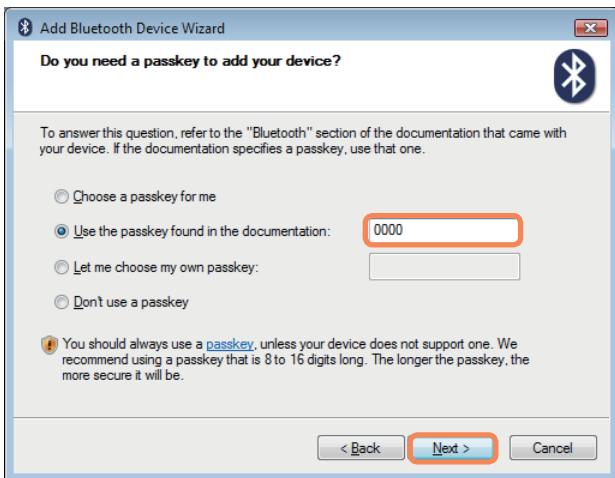
- 4 When the search is complete, all available Bluetooth devices are listed. Select the Headset from the list and click the **Next** button.



#### Note

- A Bluetooth device is represented by the device type and name (Dedicated Bluetooth ID).
- To use the Bluetooth headset, **Bluetooth Pairing Mode** is required.  
For the procedures to set up **Pairing Mode**, refer to the **Headset Manual**.

- 5** Enter the PIN in the device PIN field and click the **Next** button.



For pairing, a PIN is required. Since a PIN is provided by the headset manufacturer, refer to the corresponding manual.

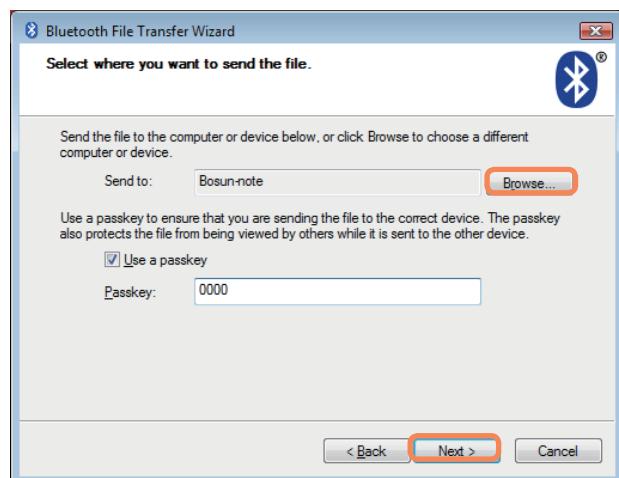
- 6** If the Completing the Add Bluetooth Device Wizard window appears, click **Finish**.

- 7** The stereo headset is connected and you can now use the Bluetooth headset normally.

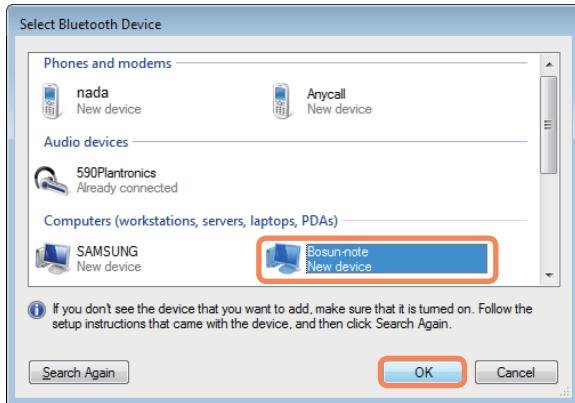
## Exchanging Files between Bluetooth Computers

The procedures to exchange files between computers with Bluetooth capability are described below.

- 1** On the computer which is sending a file (hereafter Computer A), right-click the **Bluetooth icon**( ) on the taskbar and select File Transfer.
- 2** Click **Browse**, select a Bluetooth device to send the file to and click the **Next** button in the Select Bluetooth Device window.



- 3** Select a Bluetooth device to send the file from and click the **OK** button.



- 4** Enter a PIN in the Bluetooth PIN Code field and click the **Next** button.



**Note** The **Bluetooth PIN Code** is a password used for connecting two Bluetooth devices. The user just enters the same PIN Code (E.g. same numbers) on both Bluetooth devices to make the connection.

- 5** Click **Browse**, specify a file to be sent and click **Next** button in the Select File to be Sent screen.

- 6** When the PIN input window appears on the computer to receive the file, enter the PIN from Step 5.

- 7** When the FTP file access privilege request for the file reception notification window appears, click the notification window. If the Select Access Permission window appears, click the **OK** button.

## Usage Instructions

- Bluetooth devices to be connected must be within a 3m (10 ft.) distance.
- For a better communications environment, there should be no walls or obstacles between the Bluetooth devices.
- You can connect to only one Bluetooth device at a time for a phone connection, data syncing, electronic business card exchange, FAX transmission/reception, sound related functions, and serial port functions.
- Using the network connection or file transmission function, multiple Bluetooth devices can be connected. However, since connecting to multiple devices may slow down the data rate or make the connection unstable, connecting to one device at a time is recommended.
- The Bluetooth function of a Bluetooth PDA, mobile phone, mouse or keyboard may be turned off. To use them in connection with a Samsung computer supporting Bluetooth, you must check if the Bluetooth function of the device to connect to is turned on. For the procedures on turning on the Bluetooth function of a device, refer to the relevant device manual.
- The services provided by Bluetooth devices may vary depending on their capabilities. For the services provided by the Bluetooth device, refer to the device manual.

# Chapter 5.

# Using Applications



<b>Introducing Programs</b>	<b>97</b>
<b>CyberLink PowerDVD (Optional)</b>	<b>100</b>
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Launching and Screen Layouts	104
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Music Station	109
Photo Station	113
<b>AVStation Now (Optional)</b>	<b>117</b>
Start	117
Exit	117
Screen Layout	117

# Introducing Programs

Using the software supplied with the Samsung computer, you can easily use functions and troubleshoot problems. Try to use the software after learning about the basic use of the software. For detailed information, refer to the help section of the corresponding software.



## Before You Start!

Every software program may not be provided depending on your computer model.

In addition, the screen capture images may differ from actual ones depending on the computer model and software version.



## Multi Media Functions

### ■ CyberLink PowerDVD ( ) (Optional)

To use this program, you have to install the program manually using the additionally supplied System Software Media (or other CD). ☞ p. 100

### ■ Play AVStation ( ) (Optional)

Play AVStation is an integrated multimedia program that enables users to enjoy better quality music, photographs, videos, movies, etc. all with a single program. ☞ p. 104

## Management Functions

### ■ Samsung Update Plus ( ) (Optional)

Samsung Update Plus is a software function that examines and updates the Samsung software and drivers installed on your Samsung computer to the most recent versions. ☞ p. 102

### ■ Easy Network Manager ( ) (Optional)

Easy Network Manager is a program that enables you to easily configure the network settings.

You can configure the network settings for each location and you can also diagnose the network status  
☞ p. 87

### ■ Easy Battery Manager ( ) (Optional)

Easy Battery Manager is a power management program that provides easy-to-use power management and power saving settings so that the battery usage time can be extended. ☞ p. 131

### ■ Easy Display Manager (Optional)

Easy Display Manager is a program that displays the changed setting on the screen when a setting is changed by pressing the shortcut keys, and enables changing the display mode through the Display Settings window.



Example) The icon that appears when pressing the **Fn** + (  ) keys to change the screen brightness.

### ■ Easy SpeedUP Manager (Optional)

This program enables you to select operation mode when you need maximum system performance or low-noise/low power consumption with one-click. ☞ p. 42

## Troubleshooting Functions

---

### ■ SAMSUNG Magic Doctor ( ) (Optional)

SAMSUNG Magic Doctor is troubleshooting software provided by Samsung Computer for system diagnosis, and restoring the system.

The system diagnosis function enables users to diagnose system problems without assistance from others.

# CyberLink PowerDVD (Optional)

CyberLink PowerDVD is a DVD player program.

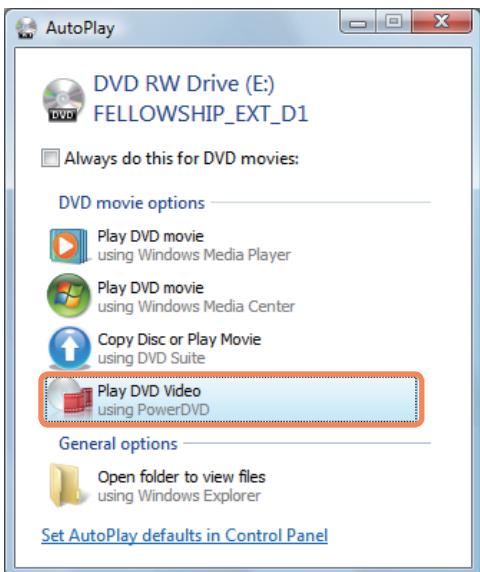


## Before You Start!

- If it is not installed on your hard disk drive, install it using the System Software media (or additional CD).
- The CyberLink PowerDVD program is optional and may be not provided for some models.

**1** Insert a DVD title into the DVD drive.

**2** Select **PowerDVD** and click the **OK** button.  
After a moment, the DVD title will play.



**3** If the DVD title is not automatically played, click **Start** > **All Programs** > **CyberLink DVD Suite** > **PowerDVD** > **CyberLink PowerDVD**.

**4** Then click the Play icon in the control panel of CyberLink PowerDVD to play the DVD title.



Play

Undock Player Panel



Note

If you click the **Undock Player Panel** button, the program control panel transforms as follows.



## Note

- **Detailed Usage**

For more detailed usage, click **Start > All Programs > Cyberlink DVD Suite > Power DVD > PowerDVD Help**.

- **DVD Region Code**

A DVD title has a region code according to the international specifications so that it can be played only in that specific region.

DVD titles with a region code will only play on DVD drives and program for playing with the same region code.

A DVD drive is sold with an empty region code and the region code is set when the user inserts a DVD title into the drive for the first time. Whenever a DVD title is inserted with a region code different from that of the DVD drive, the region code of the DVD drive is automatically changed to the region code of the DVD title.

However, changing the region code of a DVD drive is limited to 5 changes. After that, the region code is permanently fixed to the last region code. If you need to change the region code after changing the code 5 times, contact a service center. Although a service center can help you in this case, you will be charged a service fee.

# Samsung Update Plus (Optional)

Samsung Update Plus is software that examines and updates the Samsung software and drivers installed on your Samsung computer to the latest version.



## Before You Start!

- To search for updates and update your computer using Samsung Update Plus, your computer must be connected to the Internet.
- The update search result may differ depending on your computer model.



Samsung Update Plus does not provide updates for applications installed after purchasing the computer.

## Note

## To update the software and drivers

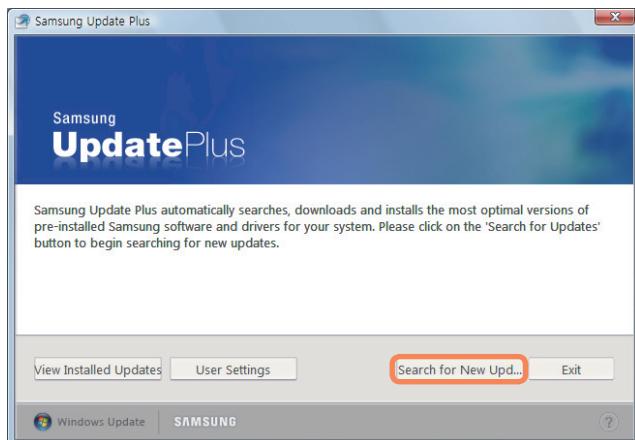
- 1 Click Start > All Programs > Samsung > Samsung Update Plus > Samsung Update Plus.



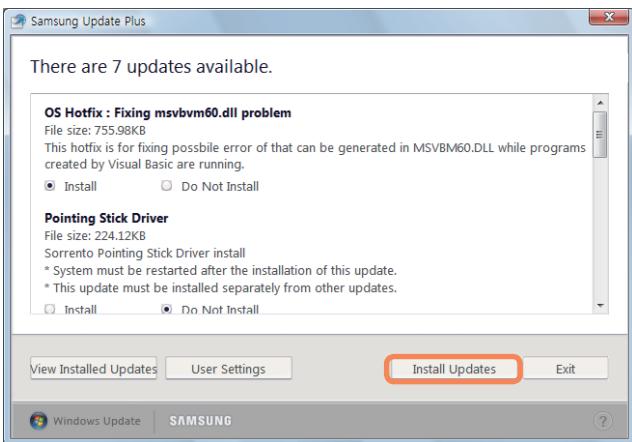
## Note

If this is the first time you are running the program, a window will appear asking you if you agree to the agreement in the window. Click Agree to use this software.

- 2 If you click on **Search for new updates**, new updates are searched for.



**3** If there are available software or driver updates for your computer, the available updates will be listed. Select the required updates from the list and click on **Install Updates** to start the update.



### Caution

#### Updates that must be installed separately.

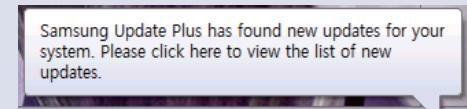
If you select **Install** for an update item that must be installed separately, a message appears informing you of this. Follow the instruction message to correctly install it.



### Note

#### Automatic update items display

By default, your computer is configured to automatically search for updates. If there is a new update available, this is displayed in the notification area. Click the balloon help icon in the notification area. Here you will be able to find the latest available updates.



# Play AVStation (Optional)

Play AVStation is an integrated multimedia program that enables users to enjoy music, photographs, video, movies, etc. using a single program.

This section describes the basic usage of Play AVStation.



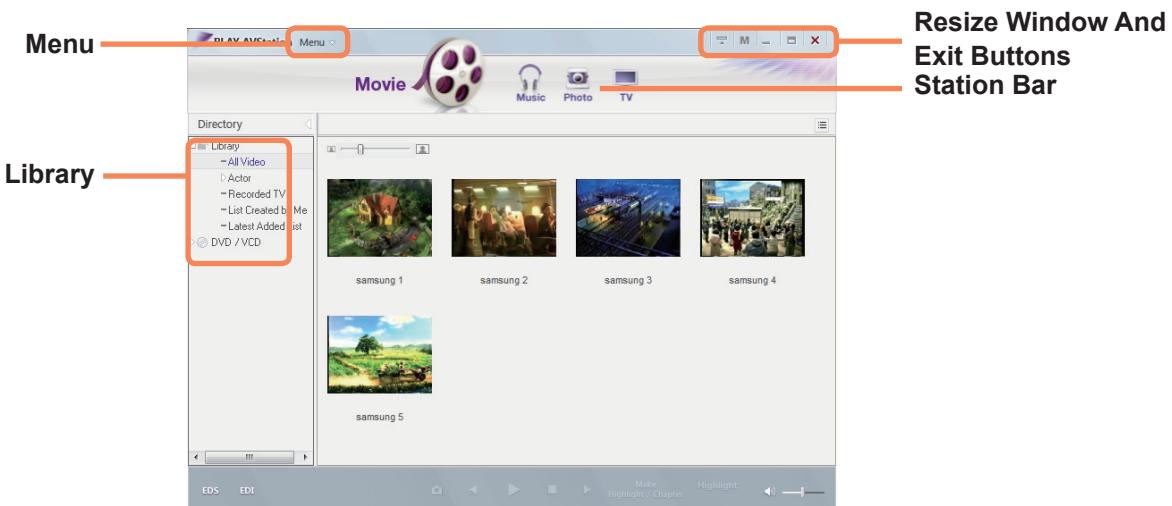
## Before You Start!

- The screens used in this manual may differ from actual screens according to the program version.
- For detailed usage, refer to the program help.
- TV Station is only available for systems supporting the TV function. This computer is not supported.

## Launching and Screen Layouts

To launch the program, click **Start > All Programs > Samsung > Play AVStation > Play AVStation**.

Alternatively, double-click the Play AVStation icon( )on the Desktop.



### Movie

You can play a video(movie) file.

### Music

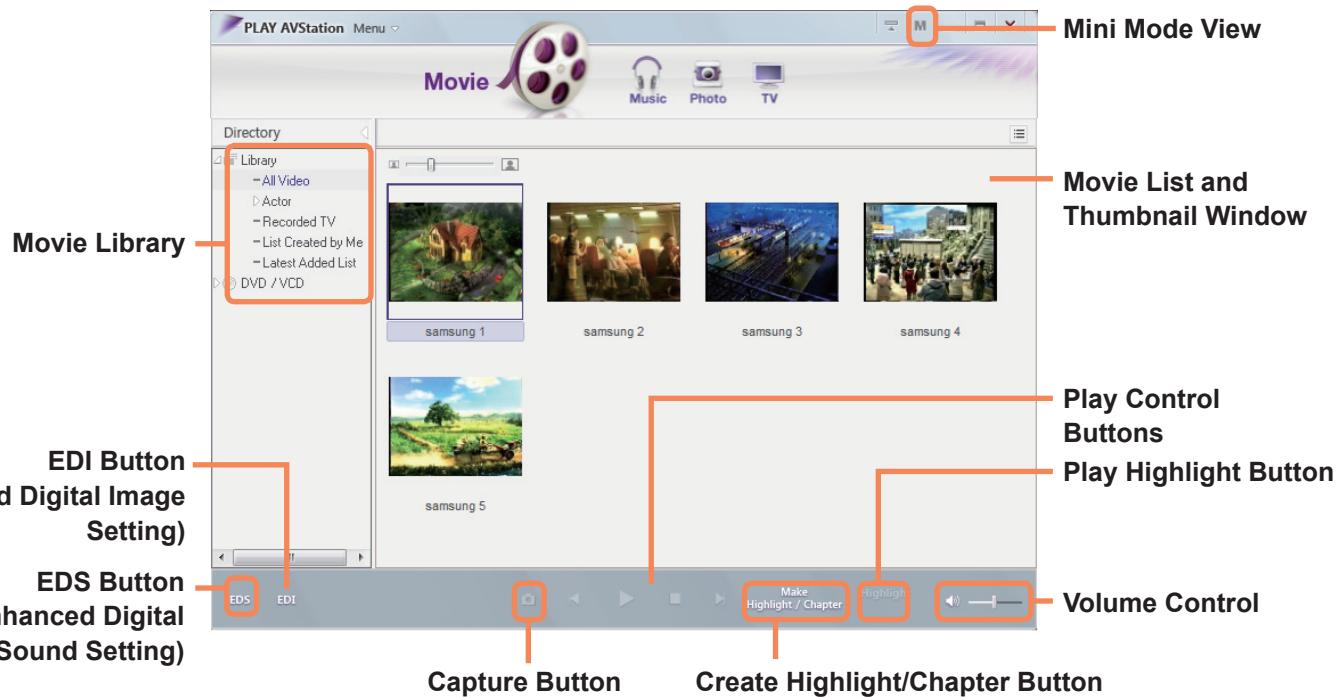
You can play a music file or an audio CD.

### Photo

You can view or edit a photograph (image), and also view the photographs in a SlideShow.

## Movie Station

Launch Play AVStation and click on **Movie** on the Station Bar.



Note

- **What is EDI (Enhanced Digital Image)?**

EDI (Enhanced Digital Image) is visual quality enhancement technology developed by Samsung Electronics. You can view clearer and sharper images by enabling the EDI function when watching TV or playing a movie on Play AVStation. To enable the EDI function, click the EDI (EDI) button at the bottom of the TV or Movie Station.

**!** Some TV tuner and graphics cards are not supported by EDI.

- **What is EDS (Enhanced Digital Sound)?**

EDS (Enhanced Digital Sound) is sound quality enhancement technology developed by Samsung Electronics. You can listen to clearer sound if you enable the EDS function when playing music or movie on Play AVStation.

To enable the EDS function, click the EDS (EDS) button at the bottom of Music or Movie Station.

## Playing a Movie File

The procedures to play a movie file registered to the MOVIE Library are described below. For the procedures to register files to the Library, refer to  p. 107.

**1** Move to **Movie Station** and double-click **All Video** in the left menu pane.

**2** Double-click a movie file.  
The file is played.



Note

- **Playing a Video File not Registered to the Library**

Click **Menu > File > Open File**, select a movie file to be played and click **Open**. The selected file is automatically registered to the Library and played.

- **Playing a Video File in Full Screen**

1. Double-click on the current playback screen.
2. The movie is played in full screen.

In full screen, to view the movie at the default size, double-click on the current playback screen again.

- **Capturing the Video Screen**

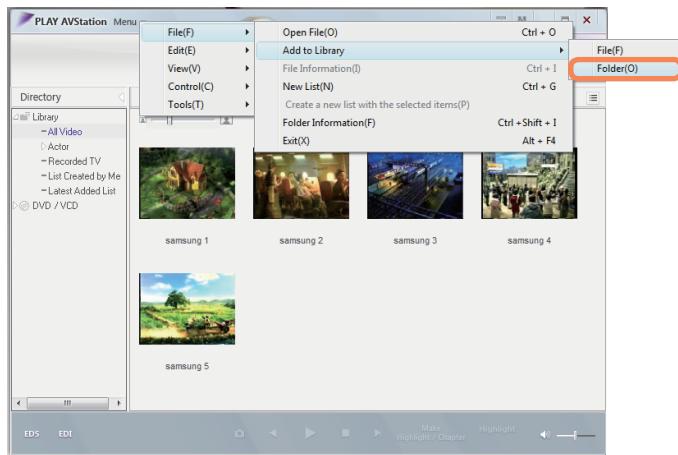
Click on **Capture Current Screen** () below the You can view captured images in the **Photo Station > Captured Images** folder. Captured images are saved in the **C:\Samsung\Play AVStation\Data\Capture** folder. You can change the captured image folder by selecting **Menu > Tools > Options > Capture**.

## Adding Videos to the Library

The Movie Library is a library with movie files to be used by Movie Station. The procedures to add movie files saved on the computer to the Library are described below.

You can add files or folders. As an example, the procedures to add folders are described below.

- 1 Select **Menu > File > Add to Library > Folder**.



- 2 Select a target folder and select **Video Files** option in the **Target File Type** field.

- 3 The movie files found in the selected folder are added to the Library.



### Note

The movie files used in Play AVStation are automatically added to the Library.

## Highlight / Chapter Function

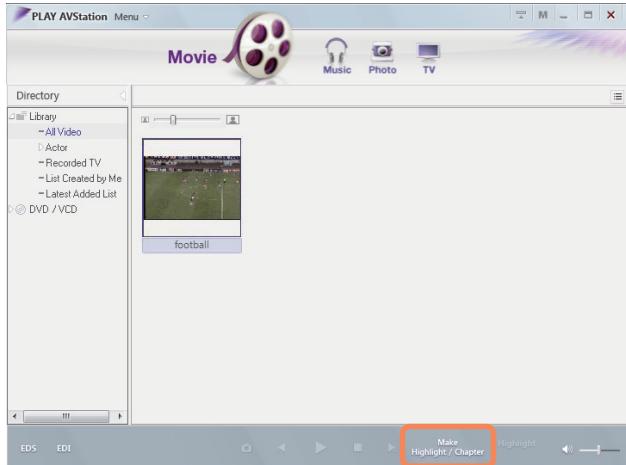
Using the Highlight function, you can watch a highlighted part of a movie such as a sports or news item, etc. Using the Chapter function, you can create chapters for a movie and play the movie from any of the chapters.



Note

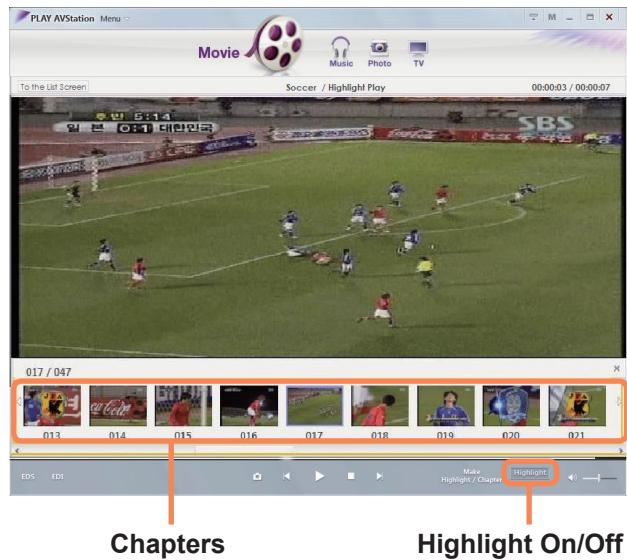
The Highlight/Chapter function works on the basis of specific standards depending on the target video. Therefore, the result of the function may differ from the user's intention.

- 1** Select a movie and click **Make Highlight/Chapter** at the bottom of the window.



- 2** Select the movie type (Sports, News, Other).  
A Highlight / Chapter is created.

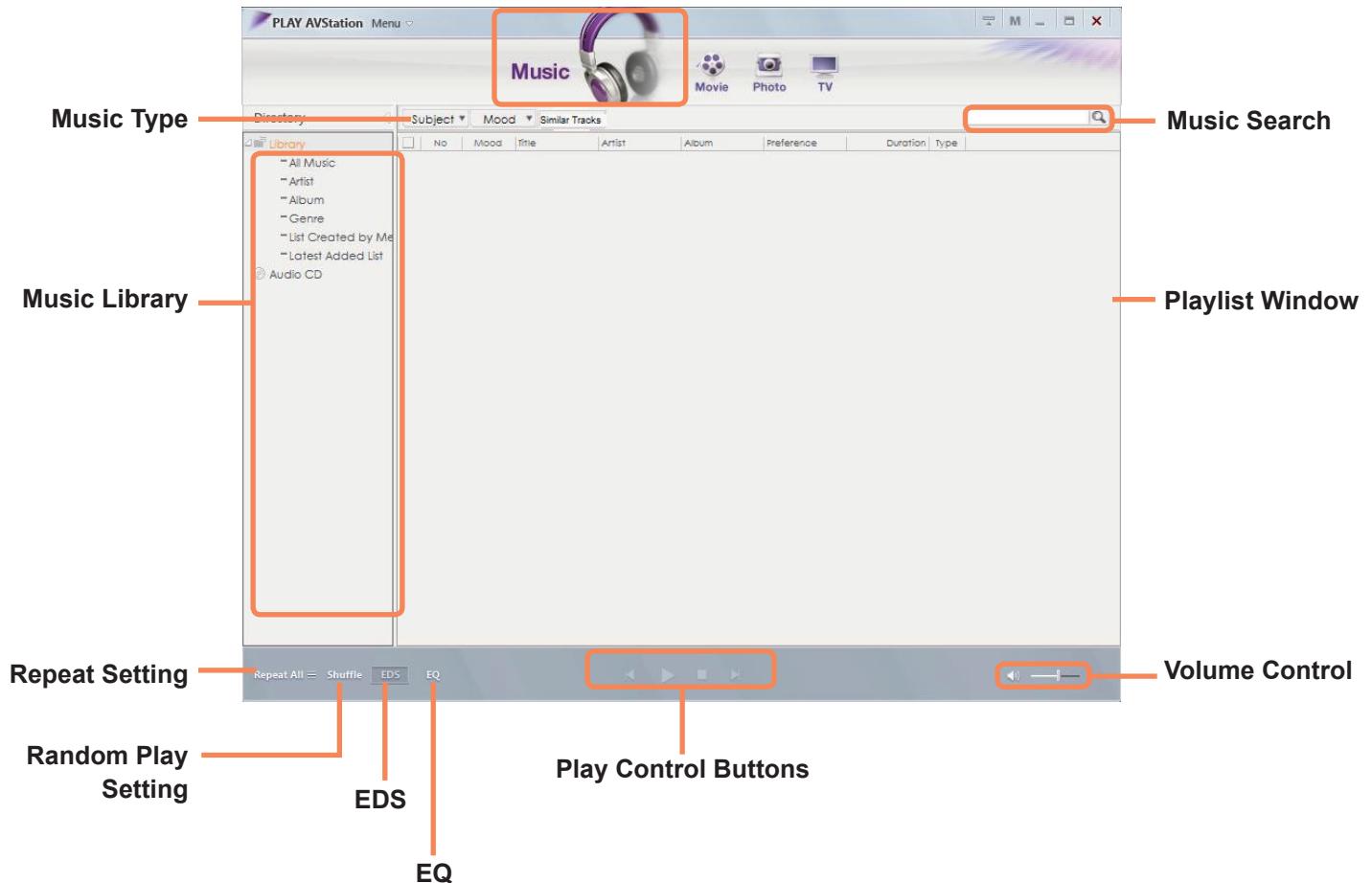
- 3** To watch a highlight, double-click a file made and click the **Highlight** icon at the bottom right of the current movie file.



- 4** The highlight is played. If you click on a Chapter thumbnail, the corresponding Chapter is played.

## Music Station

Launch Play AVStation and click **Music** on the Station Bar.

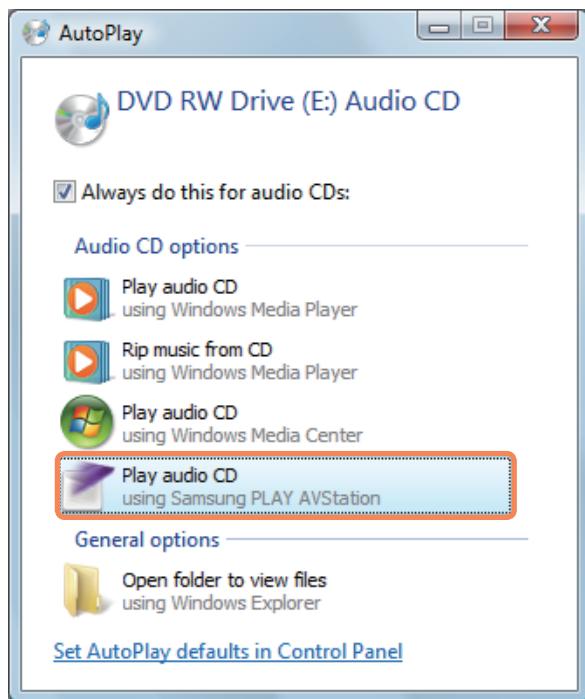


## Playing an Audio CD

The procedures to play an audio CD are described below.

**1** Insert an audio CD into the CD drive.

**2** If the AutoPlay window appears, select **Play audio CD using Samsung PLAY AVStation**.



**3** The CD is played.



### Note

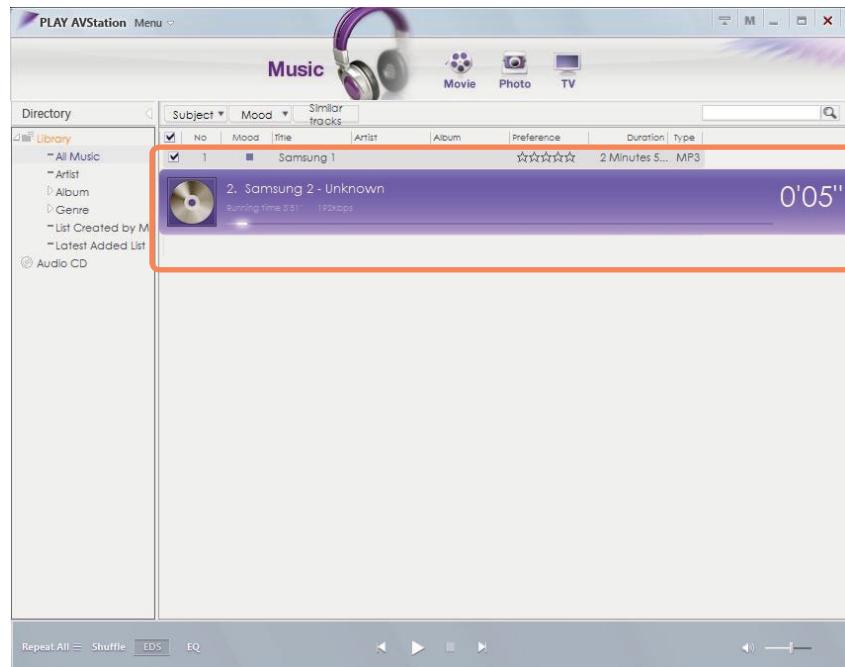
If a CD is already inserted in the CD/DVD drive, select **CD** in the **Audio CD** folder of the Library and double-click the title. The CD is played.

## Playing a Music File

If a music file is registered to the Music Library, you can easily play the music file. For the procedures to register tracks to the Library, refer to [p. 112](#).

**1** Move to **Music Station** and double-click on **All Music**.

**2** Double-click a music file.  
The file is added to the playlist and played.



### Play a Track not registered to the Library

Note

Click **Menu > File > Open File**, select a music file to be played and click **Open**.  
The selected track is registered to the Library and played.

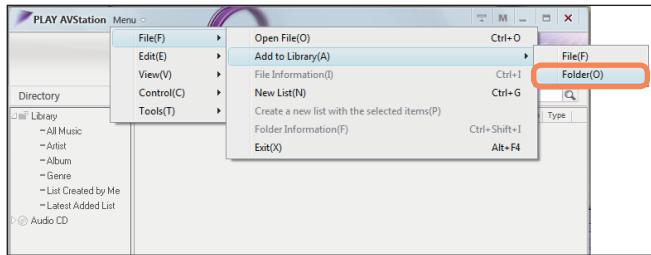
## Adding Music Files to the Library

The Music Library is a library with music files used by Music Station. The procedures to add music files saved on the computer to the Library are described below.

You can add files, folders.

As an example, the procedures to add a folder are described below.

**1** Select Menu > File > Add to Library > Folder.



**2** Select a target folder and select the Audio File option in the Target File Type.

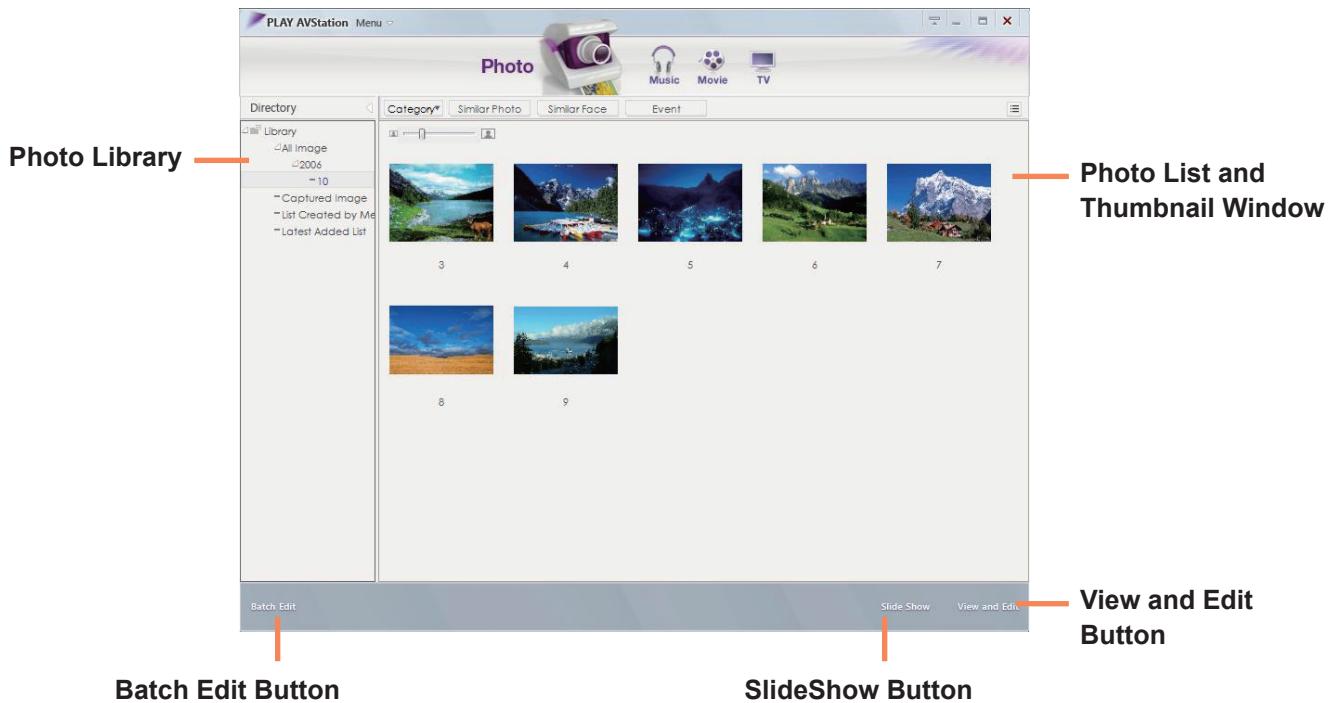
**3** The music files found in the selected folder are added to the Library. The music files are registered.



The tracks played in Play AVStation are automatically added to the Library.

# Photo Station

Launch Play AVStation and click on **Photo** on the Station Bar.



## Viewing an Image

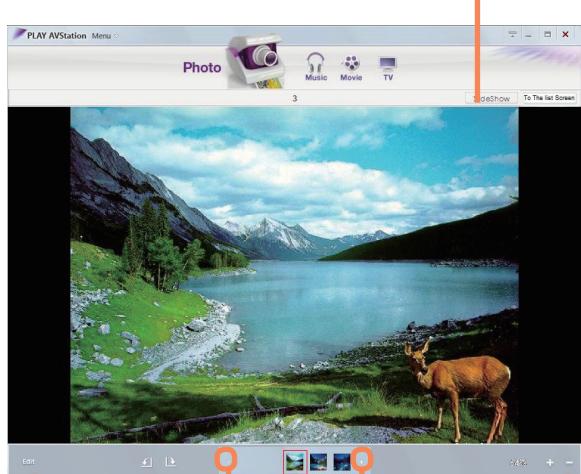
The procedures to view images registered to the Photo Library individually and via a SlideShow are described below.

For the procedures to register image files to the Library, refer to [p. 116](#).

**1** Move to **Photo Station** and double-click on **All Images**.

**2** Double-click on an image. The selected image is displayed in the Preview screen. Press the left and right arrow keys to navigate through the images.

**Slide Show**



Edit Image

Left and Right  
Arrows

Zoom  
Control

**3** Click on **To The list Screen** to return to the list.



Note

- **Viewing an image not registered to the Library**

Click **Menu > File > Open File**, select an image file to view, and click **Open**.

The selected image file is registered to the Library and displayed in the Preview window.

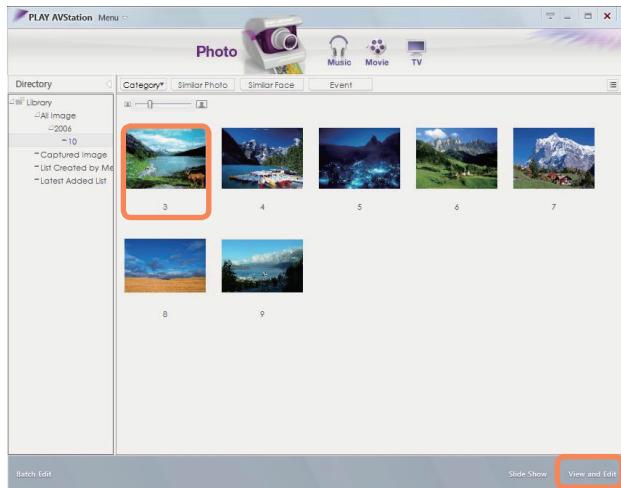
- **Viewing images using the SlideShow function**

Click the **SlideShow** button at the bottom of the Photo Station.

## Editing an Image

You can change the shape of an image, edit an image or apply special effects to an image. The image editing functions are described below.

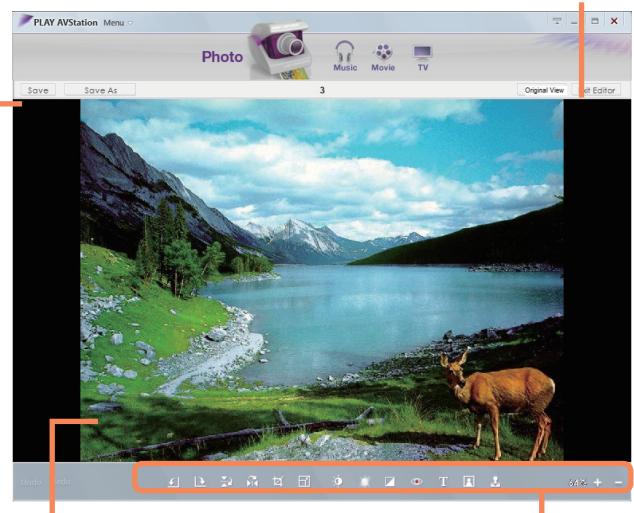
- 1** Move to **Photo Station** and double-click on **All Images**.
- 2** Click on a folder which includes images, and the images in the folder are displayed.
- 3** Double-click on an image or click the **View and Edit** button at the bottom right to switch to the Preview screen.



- 4** If the Preview screen appears, click the **Edit** button at the bottom left. If the image editor screen appears, edit the image using the Edit tools at the bottom of the window.

**Click to save the edited image**

**Click to switch to the Preview screen**



**Image Editor Window**

**Edit Tools**



**Note**

Click on Original View to edit the image comparing it to the original.

- 5** You can save an edited image by clicking the **Save** or **Save As** button.

- 6** Click the **Exit Editor** button to return to the Preview screen.

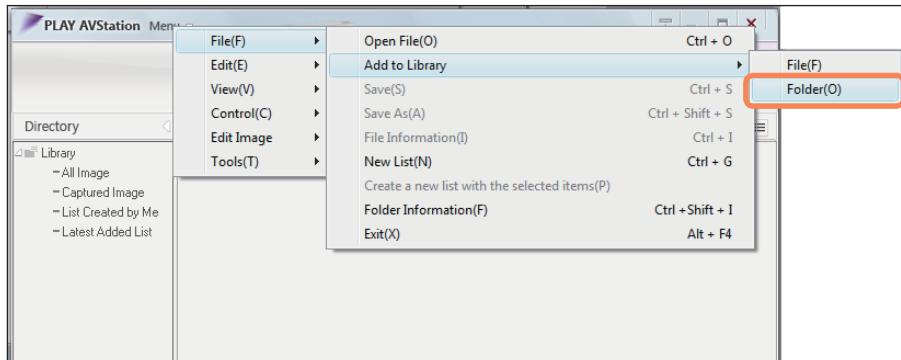
## Adding Images to the Library

The Photo Library is a library with image files to be used by Photo Station. The procedures to add image files saved on the computer to the Library are described below.

You can add files, add folders.

As an example, the procedures to add folders are described below.

- 1 Select Menu > File > Add to Library > Folder.



- 2 Select a target folder and select the Image File option in the **Target File Type** field.  
The image files found in the selected folder are added to the Library.



Note

The image files used in AVStation are automatically added to the Library.

# AVStation Now (Optional)

Using AVStation Now, you can easily and quickly play music, photographs, movies when the computer is on/off.

## Start

Press the AV ( ) button when the computer is on or off to launch AVStation Now.

## Exit

Move the mouse pointer to the top of the screen and click the Exit ( ) button to exit AVStation Now.

## Screen Layout

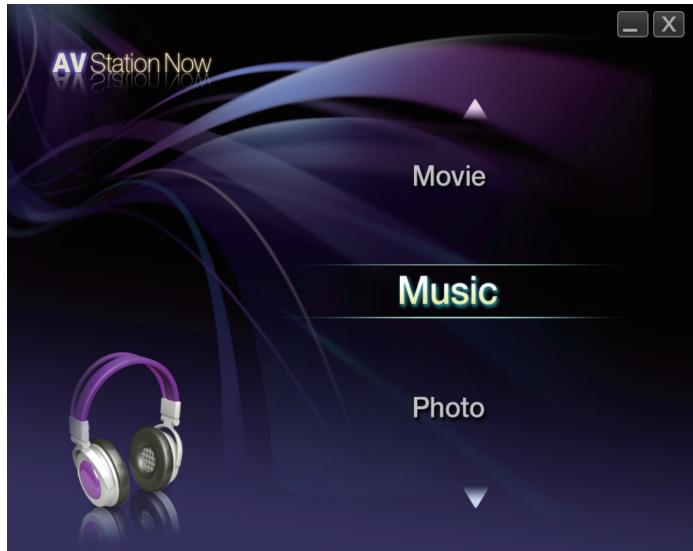
Each menu of AVStation Now is linked to a multimedia program so that you can use the corresponding function.

Click on a menu to run the corresponding program.  
For more detailed usage of each program, refer to the online help of each program.



### Caution

- AVStation Now menus may differ depending on your computer model and some functions may not be supported by your computer. In addition, if a required program is removed or not installed, the corresponding menu will not appear.
- TV Station is only available for systems supporting the TV function.
- The screens used in this manual may differ from actual screens according to the program version.



**Music:** Play AVStation is launched and you can play a music file or audio CD.

**Movie:** Play AVStation is launched and you can play a movie.

**Photo:** Play AVStation is launched and you can view photographs or image files individually or in a SlideShow.

# Chapter 6.

# Settings and Upgrade



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# LCD Brightness Control

You can adjust the LCD brightness in 8 levels.



## Before You Start!

The LCD brightness is the brightest (Level 8) when the computer is running on AC power, and it becomes dimmer when running on battery power.

## Controlling the Brightness Using the Keyboard

Adjust the LCD brightness by pressing the **Fn** + ( ) key or the **Fn** + ( ) key.

The LCD brightness can change up to 8 levels and the brightness increases by 1 level when pressing the **Fn** + ( ) key once.



### Note

#### ▪ Maintaining the changed LCD brightness even after turning the computer on again

To maintain the LCD brightness set by using the brightness control keys or through the Power Options, follow the procedures below.

1. Turn the computer on and press the **F2** key when the SAMSUNG logo appears on the screen to enter the BIOS Setup.
2. Select the **Boot** menu and set the **Brightness Mode Control** item to **User Control**.
3. Press the **F10** key to save the settings and exit Setup.

#### ▪ Saving battery power consumption

Decrease the LCD brightness when the computer is running on battery power or select **Samsung Optimized** in Easy Battery Manager to save battery power consumption.

#### ▪ Defective LCD Pixels

An LCD panel may include less than 10 defective pixels due to a limit in the manufacturing process and this does not affect the computer performance. The computer's LCD panel may have the same or similar number of defective pixels as other manufacturer's notebook computers.



### Caution

#### Instructions for Cleaning the LCD

Clean the LCD panel with a soft cloth lightly moistened with computer cleansing detergent moving in one direction. Cleaning the LCD panel with excessive force can damage the LCD.

# BIOS Setup

The BIOS Setup enables you to configure your computer hardware according to your needs.



## Before You Start!

- Use the BIOS setup to define a boot password, change the booting priority, or add a new device. Since incorrect settings may cause your system to malfunction or crash, take care when configuring the BIOS.
- The functions of the BIOS setup are subject to change for product function enhancement purposes.



The BIOS Setup menus and items may differ depending on your computer model.

## Note

## Entering the BIOS Setup

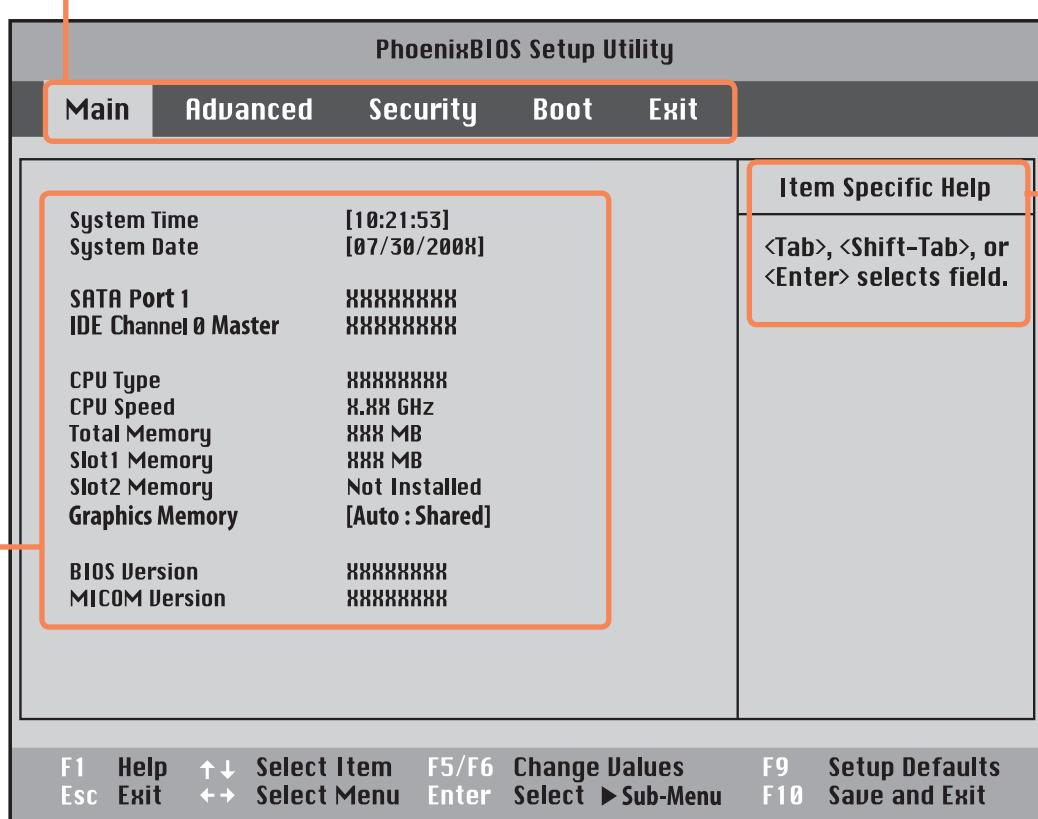
**1** Turn the computer on.

**2** When the booting screen (SAMSUNG logo) appears, press the F2 key to enter the BIOS Setup.



- 3** After a moment, the BIOS setup screen appears.  
The items in the BIOS setup may differ depending on the product.

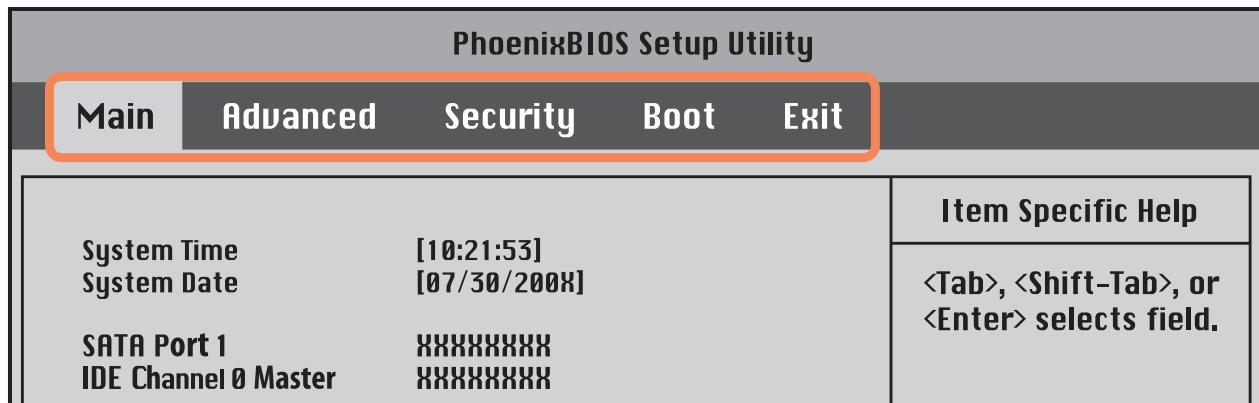
### Setup Menu



**Help**  
Help for the selected item appears automatically.

### Setup Items

## The BIOS Setup Screen

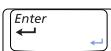


Menu	Description
Main	Used to change the basic system and environment settings.
Advanced	Used to configure advanced functions on your computer around devices and chipsets.
Security	Used to configure security functions, including passwords.
Boot	Used to set the boot priority and other boot options
Exit	Used to exit the Setup either saving the changes or not.

## System Setup Keys

---

In the Setup, you have to use the keyboard.

F1		Press to view the Setup Help.
Up & Down Keys		Press to move up and down.
F5/F6		Press to change the item value.
F9		Press to load the default Setup settings.
ESC		Press to return to a higher level menu or to move to the Exit menu.
Left & Right Keys		Press to move to another menu.
Enter		Press to select an item or to enter a sub menu.
F10		Press to save the changes and exit Setup.

---

# Setting a Boot Password

When setting a password, you have to enter a password to use the computer or enter the BIOS Setup. By configuring a password, you can restrict system access to authorized users only and protect data and files saved on the computer.



## Before You Start!

Do not lose or forget your password.

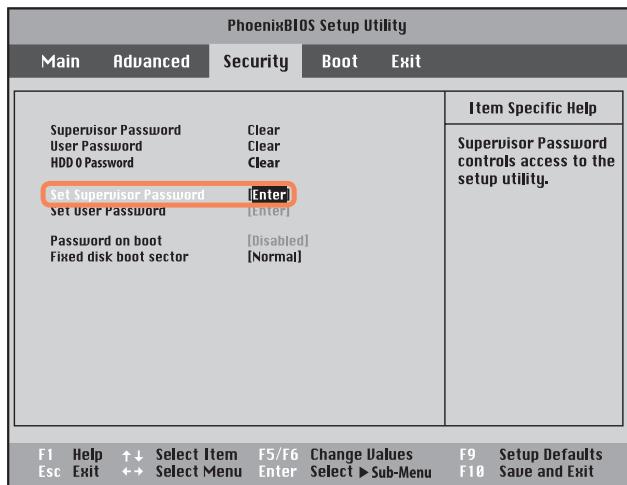
If you have forgotten your password, contact a Samsung service center. In this case, a service fee will be charged.

## Setting a Supervisor Password

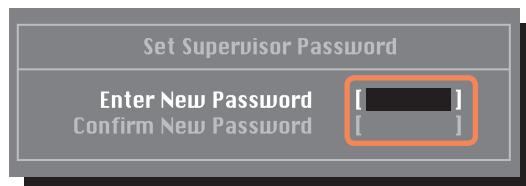
A Supervisor Password is required to turn the computer on or to start the System Setup.  
When setting a Supervisor Password, users other than a supervisor cannot use the computer.

**1** Select the **Security** menu in the BIOS Setup.

**2** In the **Set Supervisor Password** item, press <Enter>.



**3** Enter a password, press <Enter>, re-enter the password for confirmation, and press <Enter> again. The password can be up to 8 alphanumeric characters. Special characters are not allowed.



**4** When a message confirming the password configuration appears in the [**Setup Notice**] window, press <Enter>. The supervisor password has been set. The supervisor password is required to turn the computer on or to enter the BIOS Setup.

## Setting a User Password

Users can start the system with a user password, but cannot enter the System Setup. By doing this, you can prevent other users from entering Setup.

Before configuring a user password, a supervisor password must have been configured. Deactivating the supervisor password also deactivates the user password.

In the **Set User Password** item, press <Enter> and complete the procedures from Step 3 of Setting a Supervisor Password.



### Caution

#### Changing the hard disk drive password

For security purposes, you can only change a hard disk drive password after restarting the computer by pressing the computer **Power** button.

If you cannot change the hard disk drive password or the **HDD Password Frozen** message appears when entering the BIOS Setup and then selecting **Security > HDD 0 Password**, press the Power button to turn the computer on again.

## Deactivating the Password

- 1** Press <Enter> on the password to be deactivated. For example, to deactivate a supervisor password in the **Set Supervisor Password** item, press <Enter>.
- 2** In the **Enter Current Password** item, enter the currently configured password and press <Enter>.
- 3** Leave the **Enter New Password** item field empty, and press <Enter>.
- 4** Leave the **Confirm New Password** field empty, and press <Enter>.
- 5** In the **[Setup Notice]** window, press <Enter>. The password is deactivated.

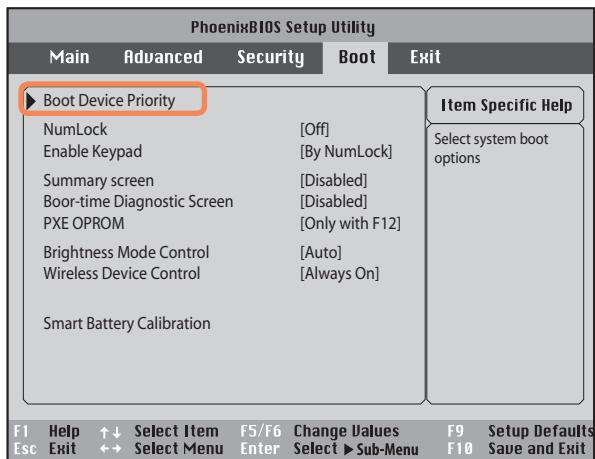
# Changing the Boot Priority

The default boot priority of your computer is the CD-ROM first, then a removable device and then the hard disk drive in this order.

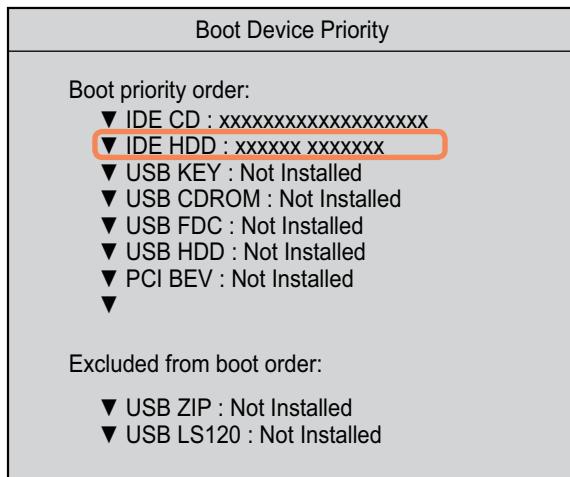
By default, the highest boot priority device is set to the CD-ROM/DVD drive. As an example, the procedures to change the highest boot priority device to the hard disk drive are described below.

**1** Select the **Boot** menu in the BIOS Setup.

**2** Press <Enter> on the **Boot Device Priority** item.



**3** Press the down key (↓) to move to the IDE HDD item and press the **F6** key to move up to the top item.



**4** Press the **F10** key to save the settings and exit Setup. The highest boot priority device is now set to the Hard Drive.

# Upgrading Memory

One or more memory modules are installed on the computer.

There are 2 memory slots and users can replace the installed memory or add new memory.

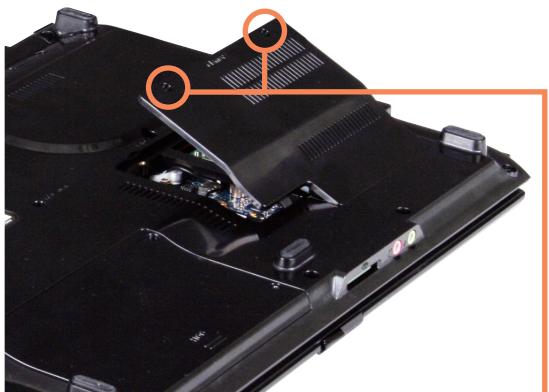


## Before You Start!

- Replace or install new memory only after shutting the computer down completely. Do not replace or install memory when the computer is in Sleep mode.
- Disconnect mains power and remove the battery before continuing.
- To utilize the dual channel feature, using memory modules with the same specifications (of the same capacity and from the same manufacturer) is recommended.
- Only use the same type of memory as specified in the Product Specification

## Adding a Memory Module

- 1** Remove the screw on the memory compartment cover at the bottom of the computer using a screw driver.



Fixing Screw

- 2** Insert a new memory module into the memory slot at an angle of approximately 30 degrees aligning it to the angle of the memory slot.



**3** Push the memory module down so that it is completely fixed. If the memory does not fit easily, push the memory module down while pulling the memory module latches outward.



**4** Close the memory compartment cover and fasten the screw.



**Note**

**Removing a memory module**

Pull the memory module latches outward. The memory module will pop up.

Remove the memory module out at an angle of 30 degrees.



# Battery

Please refer to the following instructions when running the computer on battery power without connecting the AC power.

A Lithium-Ion smart battery is supplied with this computer.



## Before You Start!

Carefully read and follow the precautions printed on the battery before using the battery.



### Precautions

Use only chargers specified in the User Manual.

#### Caution

Never heat the battery pack, put it near or in a fire or use at a temperature higher than 60°C, as this may cause fire.

Never cause a short circuit between the battery pack terminals or disassemble the battery pack.

Carefully read and follow the precautions printed on the battery and the safety instructions in the User Manual before using the battery.

Please refer to the system operation environment (p. 173) of this manual and operate and store the battery at room temperature.

## Installing/Removing the Battery

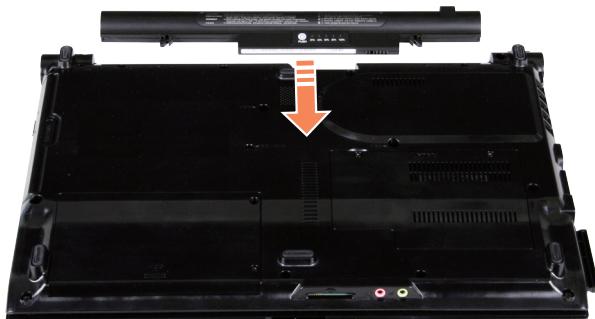
**1** Shutdown the system, close the LCD panel and place the computer upside down on a flat surface.

**2** Pull the two battery latches outwards (⇨), then remove the battery.



**3** To install the battery again, slide the battery into the system.

The battery latches move inwards and fix the battery automatically.



Check if the battery latch has been moved inwards.

### Note

## Charging the Battery

**1** Attach the battery and connect the AC adapter to the DC-in jack of the computer.

The battery will then start charging.

**2** When charging is complete, the Charge LED turns green.

Status	Charge LED
Charging	Amber
Charging complete	Green
AC adapter not connected	Off

## To view on the battery

Separate the battery and press the **PUSH** button inside the battery. The remaining battery charge (%) will be displayed.



### Note

#### Battery Warning

- You will hear an alarm when the remaining battery charge reaches below 10%. In this case, connect the AC adapter or turn off the computer and install a fully charged battery.
- When the remaining battery charge is under 3%, the computer automatically saves the current work and turns off.

## Battery Usage Time Information

You can view the battery charge status by completing the following procedures.

### To use the shortcut key to view

Press the **Fn** + ( ) keys on the keyboard. The remaining battery charge (%) will be displayed for a moment.

You can only view the charge status in this way when Easy Display Manager is installed on your computer.

A battery is an expendable supply, so when using it over a long time, the capacity/battery life is shortened. If the battery life is reduced to under half of its initial time, we recommend purchasing a new battery.

For long periods of not using the battery, keep the battery after discharging it. This extends the battery life time.

## Extending the Battery Usage Time

### Decreasing the LCD Brightness

Press the **Fn** +  keys on the keyboard to decrease the LCD brightness to extend the battery usage time.

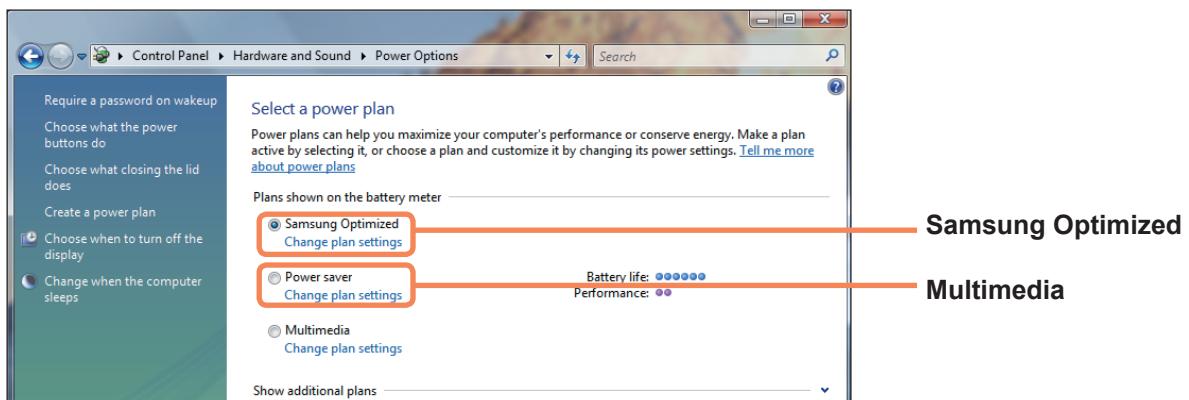
### Using Easy Battery Manager

Easy Battery Manager is a power management program that enables using the battery power efficiently. You can select an optimized power mode according to your requirements.

**1** Click **Start > Control Panel > Hardware and Sound > Power Options**.

Alternatively, right-click the power measuring device icon () in the notification area of the taskbar and select **Power Options**.

**2** If the following screen appears, select one of the modes.



## Samsung Optimized

This mode is appropriate for normal conditions. It maximizes the system performance when the computer is running on AC power while maximizing the battery usage time when the computer is running on battery power.

## Multimedia

This mode is appropriate for a multimedia environment that requires maximum system performance. Therefore, the battery usage time may be reduced in this mode.



### Note

#### Using the Easy Battery Manager power options

To use the Easy Battery Manager power options after reinstalling Windows, you have to install the Easy Battery Manager manually using the system software media.

Since power options in Easy Battery Manager aim at maximizing the battery usage time, programs requiring high performance may slow down when using the battery.

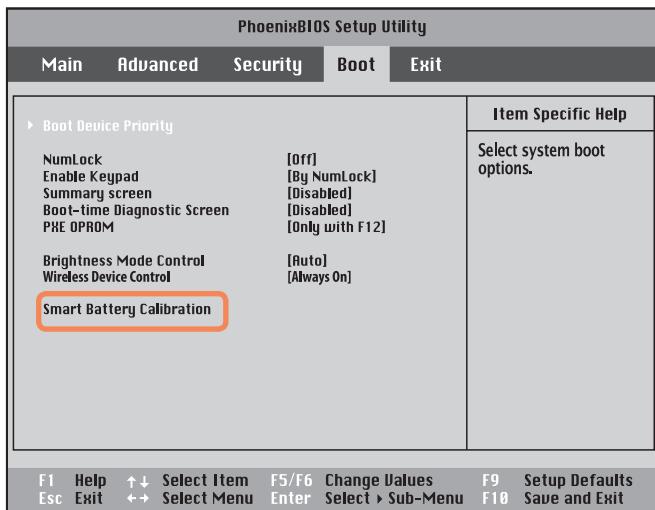
In this case, it is recommended connecting the AC adapter or selecting Power Saver.

## Using the Battery Calibration Function

When charging/discharging the battery repeatedly for a short time only, the battery usage time may be reduced by the difference between the actual battery charge and the remaining charge display.

In this case, the actual battery charge and the remaining charge display will be the same by discharging the battery completely using the Battery Calibration function, and then recharging it again.

- 1** Disconnect the AC power adapter after turning off the computer.
- 2** Restart your computer and press the **F2** button when the Samsung logo appears, to start the BIOS Setup.
- 3** Move to the **Boot > Smart Battery Calibration** item using the direction keys and press **<Enter>**.



- 4** Highlight **Yes** in the **Battery Calibration Confirmation** window and press **<Enter>**.

The Battery Calibration function is activated and the battery is forcefully discharged. To stop the operation, press the **(Esc)** button.

This operation requires 3~5 hours depending on the battery capacity and the remaining battery charge.

# Using the Security Lock Port

You can connect a Kensington lock to the Security Lock port to prevent your computer being stolen when you have to use the computer in a public place.

To use this feature, you have to purchase the Kensington lock additionally. To use the Kensington lock, refer to the product manual.

Tie the Kensington lock cable to a fixed object and install the other end of the cable to the Security Lock port.



# Chapter 7.

# Windows Media Center



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Windows Media Center is provided for some versions of Windows Vista only.  
Therefore, this chapter is for models with Windows Media Center only.

# About Package Contents and the Program Guide

## About the Package Contents

The package contents of your Samsung computer may differ depending on the computer model.

The Media Center remote control, external-type remote control sensor and TV tuner card are not supplied with your computer and the devices are not required to use Media Center.

However, if you purchase and connect the devices, you can more easily use the various Media Center features.

## About the Program Guide

An electronic TV program guide, the Electronic Program Guide (EPG) is provided by the EPG provider and the contents of the EPG may differ from the actual TV program depending on programming changes by the EPG provider or broadcast station.



Note

- You can use the Media Center TV function only when there is an installed TV tuner card.
- The contents of this manual are subject to change for product improvement purposes.

# Connecting and Setting Up Media Center

The basic usage of Media Center for Microsoft Windows Vista Home Premium is described below.



## Before You Start!

- This manual will describe procedures assuming that you are using Media Center with a mouse.
- Since Media Center supports the use of a mouse, keyboard and remote control, in this manual, [Select] means clicking with the mouse or pressing the corresponding button on the remote control.

## Optional Devices

The remote control, external-type remote control sensor and TV tuner card are not essential for using Media Center. Since these devices are not supplied with your Samsung notebook computer, you have to purchase them additionally if necessary.

## Remote Control

Using the Media Center remote control, you can use Media Center more conveniently over a short distance.

## External-Type Remote Control Sensor

To use Media Center using a remote control, you have to install the remote control sensor on the computer. When purchasing a remote control, purchase an external-type remote control sensor at the same time.

- Connect the external-type remote control sensor to the USB port of the computer and turn the sensor so that it faces the remote control.

## TV Tuner Card

Using a TV tuner card, you can watch and record TV programs.

Some models have built-in TV tuner cards. This manual describes their usage assuming your computer has a built-in TV tuner card.



### Caution

There are two types of TV tuner cards, built-in and external types, and they may not support a recording function depending on the model.

### ► Connecting the TV antenna

To use the Media Center TV function, you have to connect the TV antenna to the TV tuner card.

If your computer has a built-in TV tuner card, connect the TV antenna cable to the TV Antenna Input port.



### Note

If you do not have an installed TV tuner card, you cannot use the TV function.

## Connecting Devices

### ► Connecting an external-type remote control sensor

Connect the external-type remote control sensor to the USB port of the computer.

### ► Connecting to the Internet

To view the TV Guide or to move to Media Center sites in Media Center, you have to connect to the Internet.

Connect the network (LAN) cable to the **LAN port** of the computer.



### Caution

If the computer is not connected to the Internet, you cannot use the TV Guide (Channel Information) and the Online Spotlight functions.

## Media Center Setup

Connect all necessary devices and setup Media Center. You have to complete the settings to use Media Center.

**1** Turn the computer on.

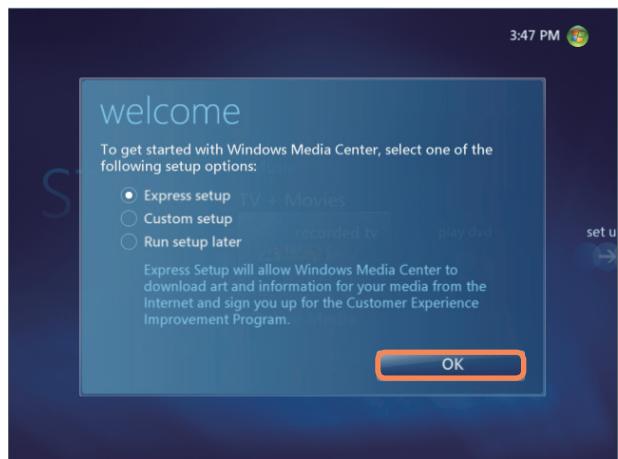
**2** Click **Start > Windows Media Center** or **Start > All Programs > Windows Media Center**.



**3** If the following start screen appears, select the installation option.

Express Setup enables you to use the basic functions of Media Center when clicking **OK**. However, you cannot use TV and Internet related functions using Express Setup.

Custom Setup allows you to configure all settings including TV and Internet settings. If you click **OK**, the Setup Wizard starts.



To setup the TV or Internet after an Express Setup, select **Tasks > Settings > General > Windows Media Center Setup** in the Media Center start screen and setup the following items.

**4** If you have selected Custom Setup, continue with the setup according to the Setup Wizard instructions.

If there are no installed TV tuner cards, the TV related setup steps will appear during the Media Center setup.

In addition, if the computer is not connected to the Internet, you cannot setup and use the TV Guide (Channel Information).



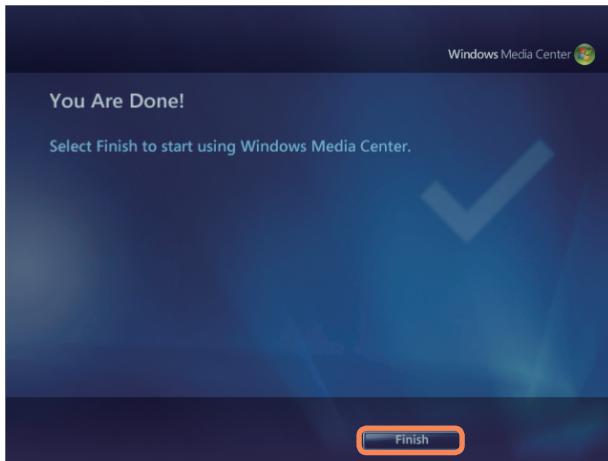
**Note**

**Changing the Media Center settings**

You can change the settings by selecting **Tasks** > **Settings** in the Media Center start screen after completing the Configuration Wizard.

**5** When the Media Center setup is complete, click **Finish**.

Now you can use the Media Center.



# Using Media Center

The descriptions of the Media Center start screen and basic functions will be given below.

## Start Screen Layout

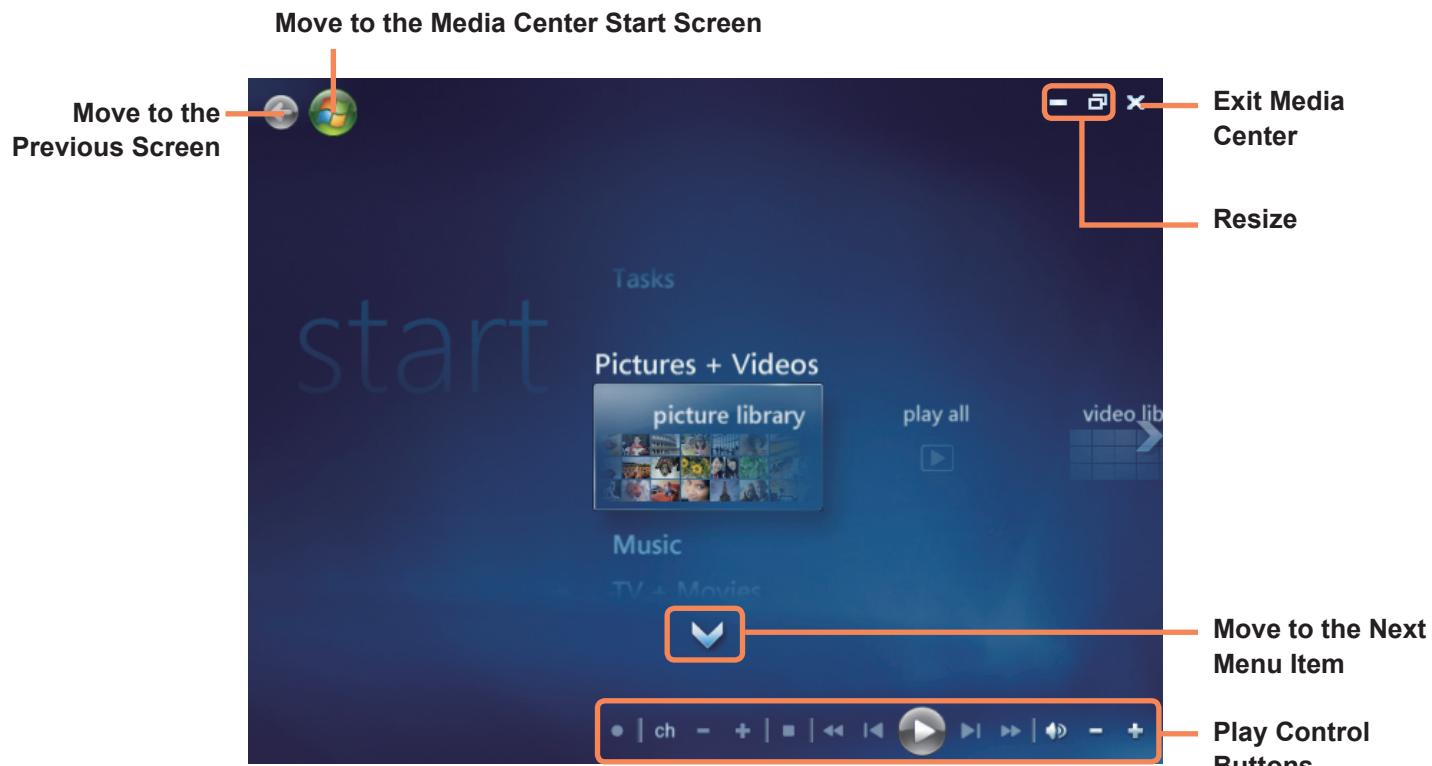


### Before You Start!

If you selected **Run Setup Later** in the Media Center start screen or did not complete the Setup Wizard, the Setup Wizard screen appears when launching Media Center.

If you complete the setup, the Media Center start screen appears.

Click **Start > Windows Media Center** or **Start > All Programs > Windows Media Center**.



**Pictures + Videos:** You can view pictures, images and video files.

**Music:** You can listen to music files, audio CDs and the radio.

**TV + Movies :** You can watch and record TV programs and play DVD titles.

**Online Media:** You can access all kinds of multimedia content over the .

**Tasks:** You can change the Media Center settings.

**Navigation Arrow:** If you move the mouse pointer over the arrow, you can navigate through the menu in the up, down, left and right directions.



Note

The Menu and Play Control buttons appear for a moment only when moving the mouse pointer. The Media Player window size decreases if you perform another task after playing a media file.

## Pictures + Videos

In Pictures + Videos, you can view pictures and videos registered to the Media Center library.

In addition, you can also view files not registered to the library by registering them, as well as viewing files on a removable disk.

## Registering to the Library

The procedures to register files to the library are described below.

- 1 Launch Media Center, and select **Pictures + Videos** > **Picture Library** or **Video Library**.



Note

When you run it for the first time, an Add window may appear. In this case, you can add files according to the instructions on the screen.

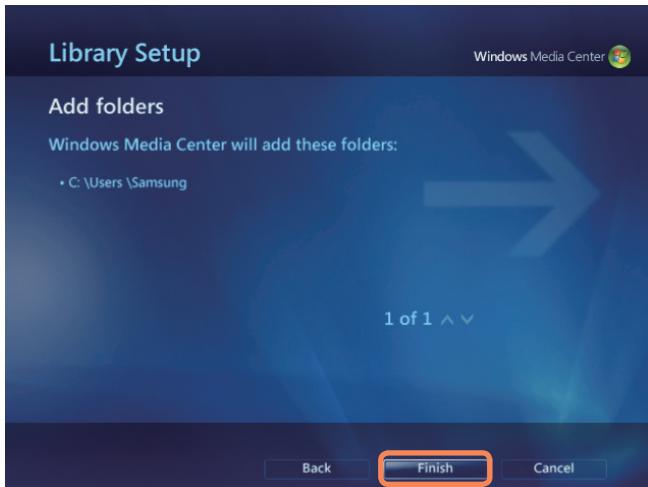
- 2 In the library menu, right-click and select **Library Setup**.



**3** If the Library Setup screen appears, select **Add Folder to Watch**.

**4** Specify the path for the folder according to the instructions on the screen.

**5** If the following screen appears, click **Finish**. You can view the newly added folder in the Picture Library or Video Library.



## Viewing Pictures and Images

The procedures to view pictures and images registered to the library are described below.



### Note

Picture and image files are saved in the **Computer > Local Disk (C:) > Users > User Accounts > Picture Folder or Computer > Local Disk (C:) > Users > Public > Public Pictures** folder.

**1** Launch Media Center, and select **Pictures + Videos**.

**2** Select **Picture Library**.



### Note

When you run it for the first time, the Setup Library window may appear. In this case, click the No button.

**3** Select a folder with picture files.



**4** If you select a picture, the picture is displayed in full screen.

You can view another picture by using the Play Control buttons or the direction buttons on the keyboard.

**5** To view pictures in a SlideShow, click on **Play SlideShow**.

Alternatively, select **Pictures + Videos > Play All**. Then the pictures in the registered folder are displayed in a random order.

## Viewing Videos

The procedures to view videos registered to the library are described below.



### Note

Video files are saved in the **Computer > Local Disk (C:) > Users > User Accounts > Video Folder** or **Computer > Local Disk (C:) > Users > Public > Public Video** folder.

**1** Launch Media Center, and select **Pictures + Videos**.

**2** Select **Video Library**.



### Note

When you run it for the first time, the Setup Library window may appear. In this case, click the No button.

**3** Select a folder with video files.  
If you select a video file, the video file is played.



## Viewing Pictures and Videos Saved on Removable Media

The procedures to view pictures, images and videos saved on removable media in Media Center are described below.

**1** Launch Media Center.

**2** Insert a removable media with picture, image or video files.

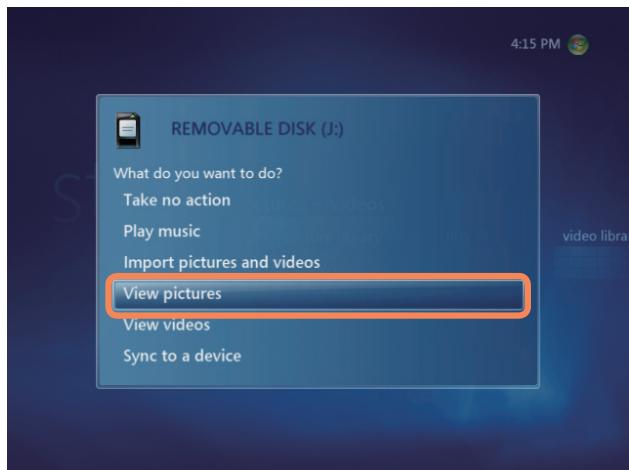
Removable media refers to a CD, DVD, USB flash memory, memory card, etc.



Note

To view pictures saved on a digital camera, connect the digital camera and the computer using a USB cable.

**3** After a while, a window notifying you that new media has been found appears. Select **View Pictures** or **View Videos**.



**4** If the file list appears, select a file.

**5** View the picture or video.

## Music

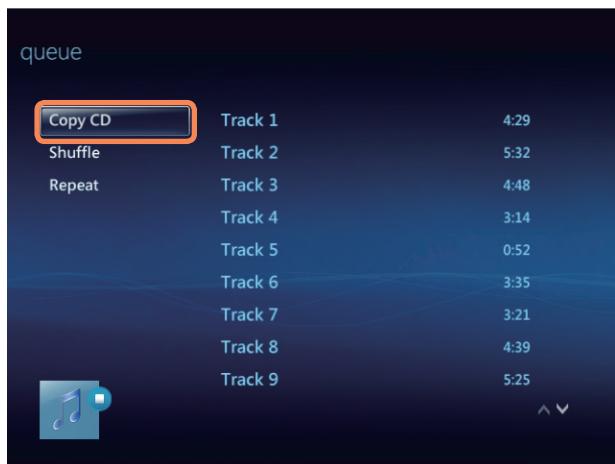
In Music of Media Center, you can play music files or audio CDs. In addition, you can rip the tracks of an audio CD onto the computer and play them later individually or by using a playlist.

### Playing an Audio CD

**1** Launch Media Center.

**2** Press the Eject button of the CD-ROM drive to open the CD tray and insert an audio CD. The tracks on the CD are played automatically.

**3** Select **Copy CD** at the bottom left of the Music Player window.



### Ripping an Audio CD

**1** Launch Media Center.

**2** Insert an audio CD into the CD-ROM drive and play the CD.



Note

When running the Rip CD function for the first time, the Ripping Options appear. Configure the ripping options according to the instructions on the screen, and complete the following procedures. From the second time the program is run, the setup options are omitted.

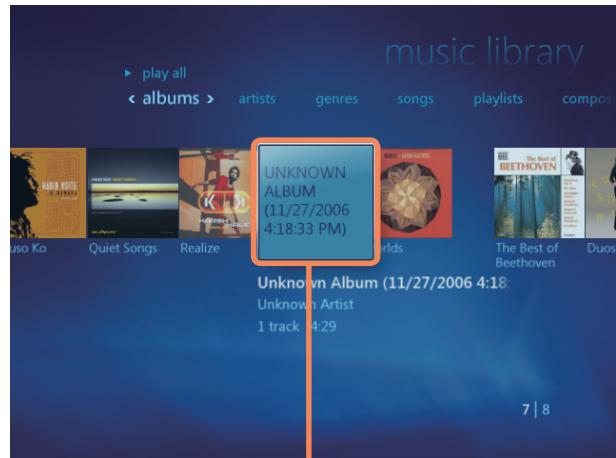
- 4** If the Rip CD window appears, click Yes.
- 5** Ripping a CD begins by showing rotating CD icon on the right side that indicates ripping a CD is in progress. When ripping is complete, the ripping CD complete message appears.

**Note**

The ripped tracks are displayed in the **Music > Music Library** of Media Center and in the **Library** of Windows Media Player. The ripped tracks are copied to **Start > Music** of the Desktop as album files.

To change the folder to save the ripped tracks to, launch Windows Media Player and right-click over the top taskbar and select **More Options > Rip Music > Rip music to this location** from the pop-up menu.

- 2** If you select **Music Library**, the album list appears including the ripped album.



Ripped music albums

- 3** Select an album to be played and click **Play Album** in the left pane.

- 4** The album is played.

## Playing Ripped Tracks

- 1** Launch Media Center, and select Music.

## Using Playlists

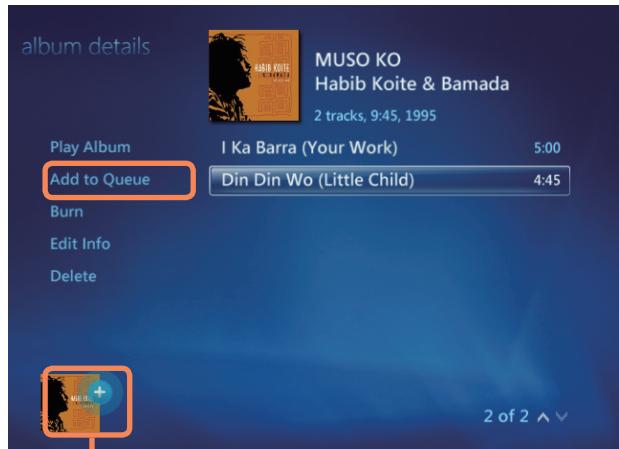
You can easily create, manage and play a playlist with ripped music albums and music files downloaded from the Internet.

**1** Launch Media Center, and select **Music > Music Library**.

**2** You can search for a music file by selecting the album, artist, genre or song at the top.  
If you select **Playlist > All Music**, all registered music files are listed.

**3** Select the music files to be added to the playlist and click **Add to Queue** in the left pane.

**4** The + mark starts blinking at the bottom left of the Media Player window and disappears the selected music files are added to the queue.



**Media Player Window**

**5** Select the Media Player window at the bottom left and click **View Queue**.

**6** Select **Save As Playlist**, enter a playlist name and select **Save**. If you have a remote control, you can enter a name using the numeric buttons on the remote control.



**7** To play the saved playlist, select **Media Center > Music Library > Playlist**, select a playlist and click **Play**.



#### Note

- **If a music file appears in the Media Center even after the file has been deleted**

If you deleted a music file, you must also manually delete the file from the Media Center playlist.

- **Deleting a playlist from Media Center**

Select **Media Center > Music Library > Playlist**, select a saved playlist and click **Delete**. Then the selected playlist is deleted.

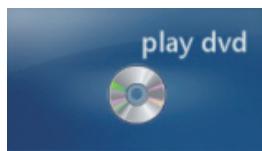
## TV + Movies



### Before You Start!

The TV function is only available when a TV tuner card is installed on your computer.

- If you have selected Install Later in the first screen of the Media Center or have not completed the Configuration Wizard, the Configuration Wizard screen will appear. When you complete the settings according to the instructions, you can use the Media Center.
- To change the TV settings, select **TV + Movies > TV Settings**.



**Play DVD:** The DVD title appears.

**Search:** You can search for a program by the title, keyword or genre.

## TV + Movies Menus



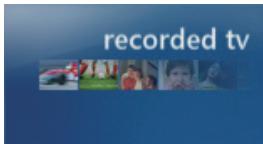
**Live TV:** You can watch live TV programs.



### Note

#### What is a TV Program Guide - EPG?

An Electronic Program Guide (EPG) is a TV program guide. You can select a program and view detailed information on that program or easily reserve a recording. The guide information is updated by Media Center more than once a day.



**Recorded TV:** You can watch recorded TV programs.

### Guide (TV Broadcast Program Guide - EPG)

You can view the TV program guide. You can watch or record live TV programs and reserve a recording.

## Watching TV

**1** Launch Media Center and select **TV + Movies**.

**2** Select **Live TV** or **Guide** from the menu.

■ **When Live TV is selected**

A TV program is played immediately. Switch to the channel you want to start watching it.

■ **When Guide is selected**

When the Guide List is displayed, select a program currently being broadcast. The program on the selected channel is displayed.



Note

Programs that are being broadcast are represented in white and programs that have been broadcast or will be broadcast are represented in blue.

**Switching channels**

- Select a channel from the Guide.
- Moving the mouse will display the play control buttons. Click the ch+ or ch- buttons to switch channels.



Note

**Using the play control buttons while watching TV**

Moving the mouse will display the play control buttons. Select Pause, Play, Fast Forward, Rewind or Skip according to your requirements.

## Recording a TV Program

The procedures to record the current program and reserve a recording will be described below.

► **Recording the current program**

**1** Moving the mouse will display the play control buttons. When the play control buttons appear, click the **Record**( ) button.  
A red dot appears indicating that a recording is in progress and the recording begins.

**2** To stop the recording, right-click and select **Stop Recording** from the pop-up menu.

Alternatively, move the mouse and double-click the **Record** button.

## ► Recording or reserving a recording in the Guide

**1** Launch the Media Center and select **TV + Movies**.

**2** Select **Guide** from the menu.

**3** Move to a program to be recorded.  
Right-click over a program to be recorded and select **Record**. A red dot appears over the program list.



**Note**

- If the selected program is scheduled to be broadcast later, the recording is reserved.
- **Recording a series.**  
Right-click over a program to be recorded and select **Record Series**. The Series Recording Indicator appears.



**Caution**

When the set time arrives, the computer automatically wakes up from Sleep mode and starts recording. To re-enter Sleep mode after completing a reserved TV recording, exit Media Center when leaving the computer. A reserved TV recording is conducted regardless of whether Media Center is executed or not.

## Watching a recorded program



**Note**

Recorded files are saved in the **Computer > Local Disk (C:) > Users > Common > Recorded TV** folder.

**1** Launch Media Center and select **TV + Movies**.

**2** Select **Recorded TV** from the menu.

**3** Select a program you want to watch in the following window.

**4** Double-click the program list or right-click and select **Play**.

The selected recording is played.

## Playing a DVD

The procedures to watch a DVD title are described below.

**1** Launch Media Center.

**2** Press the Eject button of the DVD drive to **open** the tray and insert a DVD title.

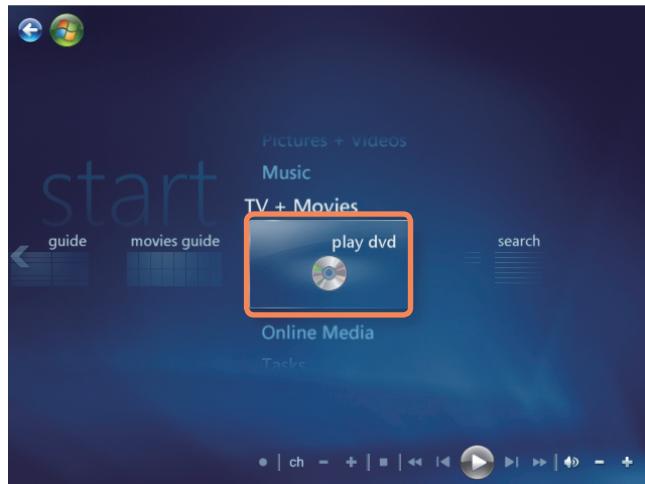


Note

If you insert a DVD title without starting Media Center, the Auto Play selection window appears.

Select **Play DVD Video using Media Center** and click **OK**.

**3** After a moment, the DVD menu is displayed. If the DVD menu is not automatically displayed, select **Play DVD** in the start screen.



**4** Select **Watch Movie** or **Play** from the DVD menu. The DVD title is played.

If you move the mouse, the Play Control buttons appear. Using the Play Control buttons, you can play the DVD from a particular point or stop playing the DVD.

## Online Media

---

You can access more online content through Online Media.

Online Media is a service provided by content providers via the Media Center. You can enjoy all kinds of multimedia content such as movies, news, sports, etc. over the Internet.



**Note**

- To use Online Media, your computer must be connected to the Internet.
- For problems encountered while using Online Media, contact the corresponding online service provider. Online Media content services are not the responsibility of the computer manufacturer.

# Chapter 8.

# Appendix



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# Using McAfee SecurityCenter (Optional)

A computer virus is a program that damages computer files and information saved on a computer. A computer is infected by an already infected file or by another computer over the Internet. Let's learn how to use McAfee SecurityCenter in order to scan and remove viruses and to protect your computer from various threats on the Internet.



## Before You Start!

- When McAfee SecurityCenter is run for the first time, the Registration screen appears. Register according to the instructions on the screen. You have to register the software to protect the PC with the latest security information.
- If you cannot find McAfee Security Center icon on the Taskbar or a shortcut icon on the Desktop, then double click McAfee Web Essentials icon and install the program.
- If you install McAfee SecurityCenter and another anti-virus program (e.g. Norton Internet Security, Kaspersky, etc) on the same computer, your computer performance may become degraded and your computer may not be protected from threats due to a conflict between the programs. It is highly recommended installing only one security program.

## Scanning and Curing Viruses

**1** Click Start > All Programs > McAfee > McAfee SecurityCenter.

**2** Click Scan from the left pane of the program.



**3** If a virus is found, remove the virus according to the instructions on the screen.

**4** If a virus is found, remove the virus according to the instructions of the Restoration Wizard.



To protect yourself against the latest viruses, update McAfee SecurityCenter regularly.

Connect to the Internet and click the **Update** icon ( ) to update.

# Using Samsung Magic Doctor (Optional)

Magic Doctor is troubleshooting software provided by Samsung Computer. A user can diagnose system problems via one-click or by selecting diagnostic items.



## Before You Start!

The screens used in this manual may differ from actual screens according to the program version.

## Diagnosing the System

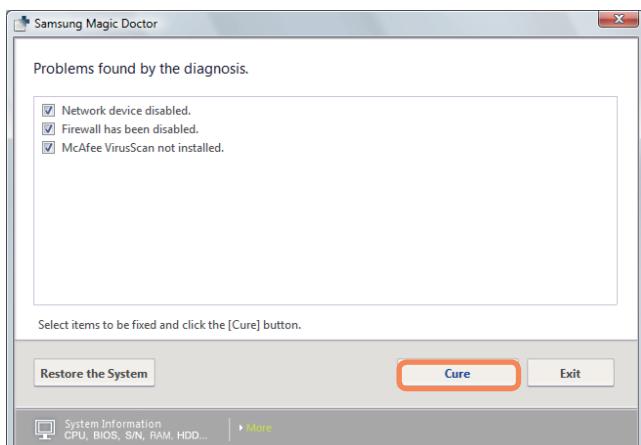
Diagnosing the System is a function to check system connections and diagnose problems affecting to system operation and solve it.

**1** Click **Start > All Programs > Samsung > Samsung Magic Doctor > Samsung Magic Doctor.**

**2** Click on **Diagnose the System** to start diagnosing the system.



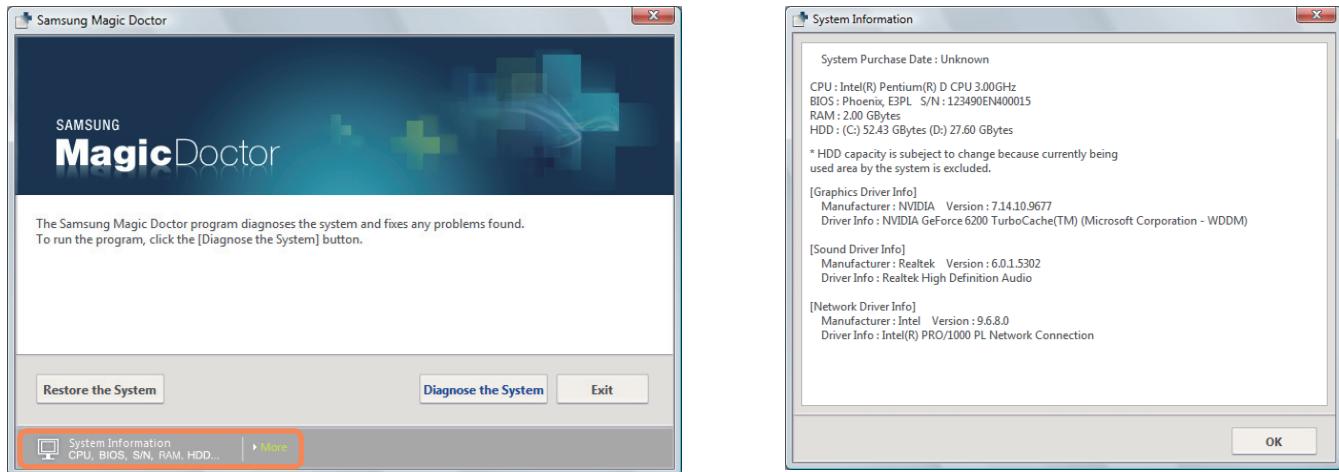
**3** When the system diagnosis is completed, the diagnostic result appears. If problems are found, click the **Cure** button to correct the problem. Samsung Magic Doctor starts the corrective operations.



## Viewing My Computer Information

You can view detailed information about your computer in Samsung Magic Doctor.

Click on the icon in the shape of a monitor at the bottom of the main program screen to view detailed information about the computer.



# Reinstalling Software

You can reinstall software using the System Software Media, when a device driver or computer application is not working properly.



## Before You Start!

When software is not working properly, it is recommended removing the software using the Add or Remove Programs of the Control Panel and reinstalling the software using the System Software Media.

The System Software Media is supplied as a CD or DVD depending on your computer model.

## Running the System Software Media

The System Diagnosis function enables users to diagnose the system connectivity, any system problems and resolve these problems.

- 1 Insert the System Software Media into the CD drive. If the Auto Play window appears, select Run **SoftwareMedia.....** in the **Install or Run Program** field.

- 2 In the **User Account Control** window, click **Allow**.



### Caution

If you are not logged in with an administrator account, you have to enter an administrator password in the User Account Control window.

- 3 The **System Software Media** will launch. Select an installation option to start the installation.



- ▶ Standard Installation  
If you select this option, programs not currently installed on the computer are listed.
- ▶ Minimum Installation  
If you select this option, programs are listed that need to be installed on the computer (drivers, Windows updates, etc.).  
**You can conveniently use this option, when you need to install essential programs only.**
- ▶ Custom Installation  
If you select this option, you can select the programs to be installed.  
**You can conveniently use this option, when you need to install an individual driver or program that is causing a problem.**

## Installing Software



Note

As an example, the installation procedures for the **Standard Installation** options are described below.

- 1 Select **Standard Installation** in the **System Software Media** main screen.



- 2 If the **Start Standard Installation** window appears, click the **Yes** button.  
The drivers and programs, which were installed in the computer when you purchased the computer, are installed again.
- 3 The **Software installations was completed** window appears.  
If you click **Yes**, the computer is restarted.

# Q & A

This section provides information on possible problems, solutions and other references for using the system.

## Display Related

### Q The LCD screen is too dark or too bright.

- A Turn the LCD backlight on or adjust the LCD brightness.

Press **Fn + (F5)** to turn the LCD backlight on or press **Fn + (↑)** or **Fn + (↓)** to adjust the LCD brightness.

### Q The screensaver is activated while Media Player is playing a movie or video clip.

- A Unselect **Library > More Options > Player > Allow screen saver during playback** in the Media Player.

### Q In the following cases, the screen blinks or there is noise for a short time.

- Click the **Graphics Related tab, Change Resolution, Change Display Device, Remove the AC Adapter, Restart the System, Change Power Scheme.**

- A This may happen while the video driver is examining the connected device. While the detection process is busy, any connected display devices may blink or some noise may occur.

### Q When I connect a projector, and change the settings to display the screen image on both the LCD and the projector by pressing the **Fn + (F4)**, the screen is not displayed properly.

- A Press the **Fn + (F4)** keys again.

If the problem continues even after pressing the key combination, this is because the current resolution is too high and is not supported by the projector. In this case, change the resolution to 1024x768 pixels.

### Q When I connect a projector, the taskbar at the bottom of the screen is not displayed on the projector.

- A This occurs because a WXGA LCD supports a resolution of 1280×800 pixels but the resolution is not supported by the projector. In this case, change the resolution to 1024x768 pixels (recommended).

**Q** The shortcut icons are not displayed on the screen even if I press the shortcut key.

- A** The shortcut icons only appear when the Easy Display Manager program is installed.

**Q** I have connected a monitor (or projector) to the computer, but the colors on the monitor are abnormally displayed.

- A** Check if the monitor and computer are properly connected with the signal cable and reconnect the cable if necessary.

## Modem Related

**Q** I cannot hear the modem

- A1** Check if the phone line is properly connected to the modem.

- A2** Check if the modem driver is properly installed.

① Click **Start > Control Panel > System and Maintenance > Device Manager > Modem** and then check if the model is not marked with a yellow exclamation mark. If it is marked with an exclamation mark, it means that the modem driver is not properly installed. In this case, remove the installed driver and install the driver again.

② If the modem is not marked with a yellow exclamation mark, double-click the installed modem and select **Diagnosis tab > Query modem** to diagnose the modem. If there is no reaction to the command, it means the modem is out of order.

In this case, restart the system or reinstall the modem driver and then diagnose the modem again.

(Close all applications using the modem before diagnosing the modem.)

## **Q** When you are unable to make a call when using a switchboard

- A** In general, the dial tone of a switchboard or a digital phone switching system is not continuous unlike that of a PSTN line. Therefore, the modem may not make a phone call as it misreads the dial tone as a busy tone. In this case, perform the following.

### **Use the AT Command**

Add the ATX3 command for initialization.

Alternatively, enter the ATX3 command first before making a phone call.

The modem will not check the dial tone before making a phone call.

### **Configuring the Model in the Control Panel**

- ① Click Start > Control Panel > Hardware and Sound.**
- ② Click on Phone and Modem Options.**
- ③ In the Modem tab, select an installed modem and click Properties.**
- ④ In the Modem tab of the Modem Properties window, unselect the Make a phone call after waiting for a dial tone option.**
- ⑤ When the settings are complete, click the OK button.**

If you cannot make a phone call starting with a 0, such as 01432, 01421, 01433, etc., this is because the private switching system is set to block long distance calls. Ask your switching system administrator.

## **Q** When using the modem overseas

- A1** Check if the country setting of the modem is set to the current country.

Since each country has slightly different telecommunication values, if the location is not set to the corresponding country, the modem may fail to make a phone call.

- ① Click Start > Control Panel > Hardware and Sound.**
- ② Click on Phone and Modem Options.**
- ③ In the Dialing Rules tab, click Edit.**
- ④ In the General tab of the Edit Location window, set the Country/Region to your current country, enter the region code and then click the OK button.**

- A2** Since the shape of the phone line connector may differ depending on the country you are in, you may have to buy a phone line connector to make a phone call from that country.

## **Q** How can I receive a FAX in Sleep mode (Standby Mode)?

- A** To receive a FAX when the computer is in Sleep Mode (Standby Mode), the computer must be configured as follows.

The FAX program must be configured so that it receives FAXES automatically referring to the FAX program manual.

- ① Click **Start > Control Panel > Hardware and Sound.**
- ② Click on **Phone and Modem Options.**
- ③ In the **Modem** tab, select an installed modem and click Properties.
- ④ In the Power Management tab of the Modem Properties window, select the **Wake up the computer with this device** option and click the **OK** button.  
**(If the Power Management tab does not appear, select Change Settings in the General tab.)**

When the modem is configured as above, and a FAX arrives, the computer wakes up from Sleep Mode and receives the FAX.

## **Wired Network (LAN) Related**

### **Q** The <Wake On LAN> function

- A1** <Wake On LAN> is a function that activates the system from Sleep mode when a signal (such as a ping or magic packet command) arrives over the network (wired LAN).

#### Using the <Wake On LAN> Function

- ① Click **Start > Control Panel > Network and Internet > Network and Sharing Center > Manage Network Connections.**
- ② Right-click on the Local Area Connection and select Properties.
- ③ Click **Configure > Power Management** tab. Select **Allow this device to bring the computer out of standby**, then click **OK**. Restart the system.
  - If the system is activated from Sleep mode when there is no received signal, use the system after disabling the <Wake On LAN> function.
  - When turning the power off when <Wake On LAN> is disabled, the LAN LED may continue to be lit.
  - Connecting a wired LAN while using a wireless LAN may not activate the <Wake On LAN> function. Set the Wireless LAN to **Disable** to use the <Wake On LAN> function.

- ① Click **Start > Control Panel > Network and Internet > Network and Sharing Center > Manage Network Connections**.
- ② Right-click on the Wireless Network Connections and select **Disable**.

**Q** When I am connected to a 100Mbps/1Gbps wired LAN and the computer exits Sleep/hibernation mode, a message appears informing you of a connection to a 10Mbps/100Mbps wired LAN.

- A** When the computer exits standby/hibernate mode, restoring the network takes about 3 seconds. When the network is restored, it operates at 100Mbps/1Gbps.

## Wireless Network (WLAN) Related

**Q** I cannot find an AP.

- A** Verify whether the Wireless LAN LED is on. If it is turned off, turn it on by pressing the Wireless LAN On/Off button (**Fn + **).

**Q** The Wireless LAN device is operating properly, but I cannot connect to the Internet or to another computer.

- This is due to an incorrect configuration, or a configuration error. Check the following:

**A1** If you are using a computer-to-computer (Ad Hoc) network connection, check that the name of the configured network (SSID) is correct.

**A2** If you are using a network key (encryption key), you have to use the same network key for an AP (Access Point) or a computer-to-computer network (Ad Hoc). The network key of the AP is configured in the AP management program. Ask your network administrator or AP manager for more detailed information.

**A3** Check that the device driver is installed properly. If the driver is not properly installed, you will find a yellow exclamation mark on the network icon by clicking **Start > Control Panel > System and Maintenance > Device Manager > Network Adapter**.

**Q** The signal strength is excellent, but I cannot connect to the network.

► Even if the signal strength is excellent, the network connection may not operate properly if the TCP/IP properties are not properly configured, or the network key (encryption key) is incorrect.

**A** Check that the TCP/IP properties are configured properly. When connecting to an AP, right-click the **Network Connections** (Wi-Fi) icon on the taskbar and select **Network and Sharing Center**. If you click the **View Status** next to a connected wireless network device and then click the **Detail** button, you can view the IP information. If the IP is not allocated properly, the IP address will be displayed as follows (e.g. 169.254.xxx.xxx).

If the network does not provide DHCP, you have to specify the correct IP address by asking your network administrator.

Even if the network provides DHCP, the server may not allocate an IP address to the client properly, and the client station cannot connect to the network.



I cannot connect to the AP.

► **Check the Computer Settings**

**A1** Select **Start > All Programs > Accessories > Windows Mobile Center** and check the wireless device status.

- When the wireless LAN is turned off  
Press the Turn wireless LAN on button to turn it on. The button is disabled and displayed in gray when no signal is received. In this case, press the MENU button at the top right and set the Wireless LAN item to On.
- When it is represented as Disconnected  
This means the computer is not connected to the AP. Check the status of the AP, referring to the descriptions of the **Checking the SP Settings** section below. Check the encryption key configured in the AP and retry to the connection.
- When it is represented as Connected, but you cannot connect to the Internet  
This means the computer is connected to the AP, but the AP or external network connected with the AP may have a problem.
- When the **There is no wireless LAN adapter** message appears or there is no wireless LAN icon  
This means the wireless LAN device is set to **Do Not Use** or the device is not recognized. Check if the wireless device is properly recognized in the Device Manager window. If the device is set to **Do Not Use**, right-click and select **Use** from the pop-up menu.

**A2** Verify whether the same network key (encryption key) has been entered for both the AP and the computer. The network key is an encryption key for encrypting the data transmitted between the AP and the computer. It is recommended setting the network key manually.

► **Check the AP Settings**

For the AP settings, refer to the User Guide provided by the AP manufacturer.

**A3** Verify whether the environment is suitable for using a wireless LAN. The use of a wireless LAN may be restricted according to the environment and distance. Obstacles such as walls or doors affect the use of a wireless LAN. Install the AP in a high and open space, 50cm from the wall and far removed from any other radio signal sources.

**A4** Verify whether the AP is operating properly.

- When the AP is not operating normally, turn off the AP, wait a short while, and turn it on again.
- Verify whether the AP's firmware is the most recent version. (Contact the AP manufacturer or the place where you purchased the AP for details of the AP firmware.)

**A5** Verify whether the AP has been properly connected to the network. Verify whether the network is operating normally by connecting the wired network cable, which has been connected to the AP, to your computer.

**A6** Check the network key settings (encryption key) again. When automatic code conversion (a passphrase function) has been selected and data communication is not functioning even with a normal wireless connection, it is recommended entering the network key (encryption key) manually.

**A7** Check the AP settings as follows. (The following is recommended for a standard environment and thus may differ according to the specific wireless network environment.)

- When several APs are present simultaneously, check the channel settings for each AP. When different APs are using nearby channels, interference may occur between the electronic waves. Set the AP channels further apart from each other.  
(Ex: Ch1, Ch5, Ch9, Ch13)
- When an AP's SSID (Service Set ID) option is set to "Hide", you cannot search for that AP on the computer. We recommend unselecting the "Hide" option for the AP. The SSID is a name used for distinguishing one wireless LAN from another wireless LAN.
- It is recommended using Long Preamble. Preamble is a signal for data transmission synchronization. Short Preamble may be supported by some types of APs but may cause compatibility problems.
- It is recommended using a static IP.
- Since static channel selection is more reliable than auto channel selection, it is recommended using a static channel.

## **Q** I cannot connect to a computer connected to the Ad-Hoc network.

**A1** Check the security settings and network name of the wireless Ad-Hoc network.

**A2** Check the TCP/IP settings of the computers connected to the wireless Ad-Hoc network. The IP addresses of the computers to be connected to a wireless Ad-Hoc network must be set to the same sub-network address.

- For example, if the TCP/IP setting is configured to a fixed IP address, select Use the following IP address in the TCP/IP Properties of the wireless adapter, configure the items as follows and try again.

IP: 10.0.0.1~10.0.0.254, Subnet Mask:  
255.255.255.0.

It is recommended using a fixed IP address for wireless Ad-Hoc network connections.

**A3** You have to register the IP address allocated for the wireless adapter as a 'Trusted IP' in McAfee SecurityCenter.

- Click **McAfee SecurityCenter > Advanced menu > Configure > Internet and Network > Advanced > Trusted and Banned IPs**, and register the IP address or IP address range as a Trusted IP address.

## **Q** During the wireless Ad-Hoc network operation, the AP (Access Point) is intermittently not found.

**A** This problem occurs intermittently during the wireless Ad-Hoc network operation. Even if this problem occurs, the wireless Ad-Hoc network operation is working properly and is not affected. Click Refresh to update the AP list.

## **Q** I have set the same IP address for both the wireless and wired connections, but they do not work properly.

**A** You cannot use wireless and wired connections using the same IP address. To sequentially use both the wired and wireless connections with the same IP address, you need to set the currently not needed connection to Do Not Use in the Network Connections of the Control Panel.

## Game and Program Related

**Q** The wireless LAN does not work properly when there is a device operating on an adjacent frequency in the vicinity of the product.

- A1** Channel interference may occur when a wireless video transceiver or a microwave oven is being used. If you experience channel interference from other equipment, we recommended changing the channel for connecting to the AP. For more information about AP settings, refer to the User Manual supplied by the AP manufacturer.
- A2** Since IEEE802.11g equipment operates in hybrid mode when there is active IEEE802.11b equipment, the data rate may be degraded.

Windows Vista may not provide some functions properly when performing some applications especially games, or may cause a problem due to a device driver compatibility issue. For the latest device drivers and bug fixes, please refer to the respective company's website.

**Q** A 3D game does not work, or some functions are not working.

- A** Change the graphics settings of the game to '2D' or 'Software Renderer', then run the program again.

**Q** The game is not displayed smoothly on the screen.

- A** For 3D games, the texture data for the 3D screen display is saved to the system memory. If there is insufficient system memory, the data is saved to the hard disk drive and loaded to memory when required. This operation may temporarily stop displaying the picture on the screen. In this case, lower the game resolution or the screen settings.

## Bluetooth

### Q When no headset is found or cannot be connected

- A1 If the headset is already connected to another device, you will not be able to find the headset and cannot connect to the headset even if the headset is found. Disconnect the connection to the other device and then start the search again.
- A2 If the headset is connected to a power adapter, you cannot make a Bluetooth connection. Disconnect the power adapter and then retry.
- A3 In general, a Bluetooth headset has 2 operating modes, On/Off mode and Pairing mode. To connect the headset to another Bluetooth device such as a PC or cell phone, the headset must be in Pairing mode. Switch the headset to Pairing mode and then retry the search operation. In general, the headset in Pairing mode automatically returns to On/Off mode after a certain period of time.

### Q There is no sound or sound is intermittently interrupted after connecting a headset

- A1 If your headset is a **mono headset**, check if a mono headset connection has been made. In this case, to resolve the problem, complete the procedures below.
- ① Right-click over the Bluetooth icon on the taskbar, select **Audio tab > Connected Device**, and check if **Activate Mono Headset** is selected. If not, right-click over the device and select **Connect**.
  - ② Right-click over the **Speaker** icon on the taskbar, select **Playing Device > Mono Device > Load Defaults** and then click the **OK** button.



The Bluetooth **Mono Headphone** and **Microphone** functions are activated.

## Other

**A2** If your head set is a **stereo headset**, you have to check if the headset is connected as a stereo headset.

To resolve the problem, complete the procedures below.

- ① Double-click the Bluetooth icon on the Taskbar, select the **Audio** tab and check the connection status of the **Bluetooth Stereo Audio** that corresponds to the corresponding headset in the connected device list. If it is not connected, right-click over the device and select **Connect** from the pop-up menu.
- ② Right-click over the **Speaker** icon on the Taskbar, click **Play Device > Bluetooth High-quality Audio > Load Defaults**, and click the **OK** button.



Note

After changing the Bluetooth or sound settings, you must exit and re-run the audio/video player program (such as Windows Media Player) to apply the changed settings.

**Q A 4GB memory capacity is not recognized by Windows.**

- A** Windows Vista cannot display more than 4GB of memory due to license problems and driver compatibility reasons.
- Although the memory capacity is displayed as 3GB in the system information, the 4GB memory is recognized and can be used normally.

**Q The User Controls window appears when installing or running a program in Windows Vista.**

- A** In this case, click **Allow** (or **OK**) to install or run the program. However, if you do not have an administrator account, you have to enter the administrator password in the User Controls window and then click **Allow** (or **OK**). If no administrator password is set you can click **Allow** (or **OK**) without entering a password.

# About Intel Media Sharing Software (Only for some models)

Intel Media Sharing Software enables users to access, download and play all kinds of media files such as music, video, image and picture files in the home network environment.

Intel Media Sharing Software runs on Intel CPU installed Intel Centrino mobile PCs only. You can achieve the best performance when the software is used with the Intel Viiv system.



- For detailed information about the Intel Viiv system, visit the Intel website: <http://www.intel.com>
- This function is only supported for some models.

## Running Intel Media Sharing Software

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If you are running the Intel Media Sharing Software for the first time, the Select a server message appears.

If you do not have a Media Sharing Server or a Viiv System at home, select Offline. Otherwise, configure the settings according to the instructions of the Installation Wizard. For detailed information about Intel Media Sharing Software, refer to the online help of the Intel Media Sharing Software.

# Product Specifications (R19/R20/R21)

The system specifications may differ depending on the derived models. For detailed system specifications, refer to the product catalogue.

## NP-R19/R20/R21

<b>CPU*</b>	Intel Core™2 Duo processor Intel Core™ Duo processor / Intel Core™ Solo processor Intel Celeron M
<b>Cache Memory*</b>	1MB / 2MB / 4MB
<b>Main Memory*</b>	512MB ~ 2GB, Max 4GB, Memory type : DDR2 SODIMM
<b>Main Chipset*</b>	ATI RS600ME + SB600
<b>Hard Disk Drive*</b>	9.5mmH 2.5" HDD (80GB ~ 200GB)
<b>ODD*</b>	DVD ROM, DVD-Combo, Super-Multi (DL)
<b>Graphics*</b>	Internal Graphic (ATI Radeon Xpress 1250M)
<b>Sound Chipset</b>	High Definition Audio Codec AD1986A
<b>Network*</b>	Fax/Modem : V.92 Wired LAN : Broadcom BCM4401E 10/100 Wireless LAN : 802.11BG Bluetooth 2.0+EDR
<b>PCI ExpressCard Slot</b>	PCI Express Card Support
<b>Multi Card Slot*</b>	Memory Stick / Memory Stick Pro / SD Card / xD Card / MMC
<b>Ports*</b>	USB 2.0 Port x 3, Video (Monitor) Port, TV Output Port (S-Video), Headphone Jack, Microphone Jack, Modem Port*, LAN Port, Power Input Jack, Security Lock Port
<b>Dimensions</b>	340.4 X 259.6 X 27.7~38.7 mm
<b>LCD</b>	14.1" WXGA (1280x800)
<b>Weight*</b>	2.39Kg
<b>Battery*</b>	Lithium-Ion Smart Battery: 4 or 8 Cells
<b>Operating Environment</b>	Temperature : -5~40°C for storage, 10~32°C when operating Humidity : 5~90% for storage, 20~80% when operating
<b>Operating Voltage</b>	100 - 240VAC
<b>Frequency</b>	50 / 60Hz
<b>Output Power*</b>	60/90W
<b>Output Voltage</b>	19VDC



### Caution

- The (\*) mark represents optional components. Optional components may not be provided or different components may be provided depending on the computer model.
- The system specifications are subject to change without notice.
- The hard disk drive capacity of a computer in which Samsung Recovery Solution II is installed, is represented as smaller than the product specification.

# Product Specifications (R19plus/R20plus/R21plus)

The system specifications may differ depending on the derived models. For detailed system specifications, refer to the product catalogue.

## NP-R19plus/R20plus/R21plus

CPU*	Intel Core™2 Duo processor
Cache Memory*	1MB / 2MB / 4MB
Main Memory*	512MB ~ 2GB, Max 4GB, Memory type : DDR2 SODIMM
Main Chipset*	ATI RS600ME + SB600
Hard Disk Drive*	9.5mmH 2.5" HDD (80GB ~ 200GB)
ODD*	DVD ROM, DVD-Combo, Super-Multi (DL)
Graphics*	Internal Graphic (ATI Radeon Xpress 1250M)
Sound Chipset	High Definition Audio Codec AD1986A
Network*	Fax/Modem : V.92 Wired LAN : Broadcom BCM4401E 10/100 Wireless LAN : 802.11BG Bluetooth 2.0+EDR
PCI ExpressCard Slot	PCI Express Card Support
Multi Card Slot*	Memory Stick / Memory Stick Pro / SD Card / xD Card / MMC
Ports*	USB 2.0 Port x 3, Video (Monitor) Port, TV Output Port (S-Video), Headphone Jack, Microphone Jack, Modem Port*, LAN Port, Power Input Jack, Security Lock Port
Dimensions	340.4 X 259.6 X 27.7~38.7 mm
LCD	14.1" WXGA (1280x800)
Weight*	2.39Kg
Battery*	Lithium-Ion Smart Battery: 4 or 8 Cells
Operating Environment	Temperature : -5~40°C for storage, 10~32°C when operating Humidity : 5~90% for storage, 20~80% when operating
Operating Voltage	100 - 240VAC
Frequency	50 / 60Hz
Output Power*	60/90W
Output Voltage	19VDC



### Caution

- The ( \* ) mark represents optional components. Optional components may not be provided or different components may be provided depending on the computer model.
- The system specifications are subject to change without notice.
- The hard disk drive capacity of a computer in which Samsung Recovery Solution II is installed, is represented as smaller than the product specification.

# Product Specifications (R25plus/R26plus)

The system specifications may differ depending on the derived models. For detailed system specifications, refer to the product catalogue.

## NP-R25plus/R26plus

<b>CPU*</b>	Intel Core™2 Duo processor
<b>Cache Memory*</b>	1MB / 2MB / 4MB
<b>Main Memory*</b>	512MB ~ 2GB, Max 4GB, Memory type : DDR2 SODIMM
<b>Main Chipset*</b>	ATI RS600ME + SB600
<b>Hard Disk Drive*</b>	9.5mmH 2.5" HDD (80GB ~ 200GB)
<b>ODD*</b>	DVD ROM, DVD-Combo, Super-Multi (DL)
<b>Graphics*</b>	External Graphic (ATI Mobility Radeon 2300 M64S)
<b>Sound Chipset</b>	High Definition Audio Codec AD1986A
<b>Network*</b>	Fax/Modem : V.92 Wired LAN : Broadcom BCM4401E 10/100 Wireless LAN : 802.11BG Bluetooth 2.0+EDR
<b>PCI ExpressCard Slot</b>	PCI Express Card Support
<b>Multi Card Slot*</b>	Memory Stick / Memory Stick Pro / SD Card / xD Card / MMC
<b>Ports*</b>	USB 2.0 Port x 3, Video (Monitor) Port, TV Output Port (S-Video), Headphone Jack, Microphone Jack, Modem Port*, LAN Port, Power Input Jack, Security Lock Port
<b>Dimensions</b>	340.4 X 259.6 X 27.7~38.7 mm
<b>LCD</b>	14.1" WXGA (1280x800)
<b>Weight*</b>	2.39Kg
<b>Battery*</b>	Lithium-Ion Smart Battery: 4 or 8 Cells
<b>Operating Environment</b>	Temperature : -5~40°C for storage, 10~32°C when operating Humidity : 5~90% for storage, 20~80% when operating
<b>Operating Voltage</b>	100 - 240VAC
<b>Frequency</b>	50 / 60Hz
<b>Output Power*</b>	90W
<b>Output Voltage</b>	19VDC



### Caution

- The ( \* ) mark represents optional components. Optional components may not be provided or different components may be provided depending on the computer model.
- The system specifications are subject to change without notice.
- The hard disk drive capacity of a computer in which Samsung Recovery Solution II is installed, is represented as smaller than the product specification.

## Wireless LAN Specifications (802.11BG Card)

### Atheros Wireless Network Adapter Device

- **The Name of the Registered Equipment** : Special Low Power Wireless Device for Wireless Data Communication Systems.

Item		Detailed Specifications
Physical Specifications	Dimensions	30.0 × 50.95mm (Width X Height)
	Operating Temperature And Humidity	Temperature: Between 0°C and 70°C, Maximum Humidity: 85%
Power Specifications	Sleep Mode	726mW
	Receive Mode	1.353W
	Transmission Mode	2.046W
	Power	3.3V
Network Specifications	Compatibility	IEEE 802.11b, IEEE 802.11g
	Operating System	Microsoft Windows XP/Vista
	Media Access Protocol (MAC)	CSMA/CA (Collision Avoidance) with Acknowledgement (ACK)
	Security	Wired Equivalent Privacy support (WEP) 64bit/128bit WPA*

- \* This device supports the Wireless LAN Security Specifications WPA (Wi-Fi Protected Access) for Wi-Fi. To connect to a WPA wireless network, you have to configure the settings according to the network connection environment. For detailed setting information, ask your network administrator.

## ■ Radio Specifications

<b>RF Band</b>	2.4GHz
<b>Supported Channels</b>	Channels allowed per country.
<b>Device</b>	Transceiver
<b>Standard Output Power</b>	MAX 10mW
<b>Modulation Scheme</b>	11b mode : DSSS, CCK
	11g mode : OFDM
<b>Data Rate (Mbps)*</b>	11b mode : 11, 5.5, 2, 1
	11g mode** : 54, 48, 36, 24, 18, 12, 9, 6
<b>Antenna Type</b>	Built-in Antenna

\* The data rate may differ from the real data transmission rate.

\*\* 11g mode is supported only when you are connected to an IEEE 802.11g device (e.g. An Access Point supporting IEEE 802.11g).

## Atheros AR5007EG Wireless Network Adapter

- **The Name of the Registered Equipment** : Special Low Power Wireless Device for Wireless Data Communication Systems.

Item		Detailed Specifications
<b>Physical Specifications</b>	Dimensions	30.0 × 50.95mm (Width X Height)
	Operating Temperature And Humidity	Temperature: Between 0°C and 70°C, Maximum Humidity: 85%
<b>Power Specifications</b>	Sleep Mode	726mW
	Receive Mode	1.353W
	Transmission Mode	2.046W
	Power	3.3V
<b>Network Specifications</b>	Compatibility	IEEE 802.11b, IEEE 802.11g
	Operating System	Microsoft Windows XP/Vista
	Media Access Protocol (MAC)	CSMA/CA (Collision Avoidance) with Acknowledgement (ACK)
	Security	Wired Equivalent Privacy support (WEP) 64bit/128bit WPA*

\* This device supports the Wireless LAN Security Specifications WPA (Wi-Fi Protected Access) for Wi-Fi. To connect to a WPA wireless network, you have to configure the settings according to the network connection environment. For detailed setting information, ask your network administrator.

## ■ Radio Specifications

<b>RF Band</b>	2.4GHz
<b>Supported Channels</b>	Channels allowed per country.
<b>Device</b>	Transceiver
<b>Standard Output Power</b>	MAX 10mW
<b>Modulation Scheme</b>	DSSS, CCK, OFDM
<b>Data Rate (Mbps)*</b>	11b mode : 11, 5.5, 2, 1
	11g mode** : 54, 48, 36, 24, 18, 12, 9, 6
<b>Antenna Type</b>	Built-in Antenna

\* The data rate may differ from the real data transmission rate.

\*\* 11g mode is supported only when you are connected to an IEEE 802.11g device (e.g. An Access Point supporting IEEE 802.11g).

## Registered Trademarks

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## About the Product Capacity Representation Standard

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The capacity of the storage device (HDD, SSD) of the manufacturer is calculated assuming that 1KB=1,000 Bytes.

However, the operating system (Windows) calculates the storage device capacity assuming that 1KB=1,024 Bytes, and therefore the capacity representation of the HDD in Windows is smaller than the actual capacity due to the difference in capacity calculation. (E.g. For a 80GB HDD, Windows represents the capacity as 74.5GB)

In addition, the capacity representation in Windows may be even smaller because some programs such as Recovery Solution may reside in a hidden area of the HDD.

# Glossary

The Glossary lists the terminologies used in this User Guide.

For terminologies other than these, look in Windows Help.

## **Backup**

A way to save the current data to restore it later if necessary. A backup is a way to restore computer data when the data or computer is damaged.

## **Client**

This refers to a computer that uses a shared network resource provided by a server.

## **DDR SDRAM** (Double Data Rate Synchronous Dynamic Random Access Memory)

DRAM is a memory type whose cells consist of a capacitor and transistor manufactured at a low price. SDRAM is a memory type whose performance has been improved by synchronizing the clock with the external CPU clock. DDR SDRAM is a memory type whose performance has been improved by doubling the operating speed of the SDRAM and is widely used nowadays. This computer uses DDR SDRAM.

## **Device Manager**

An administrative tool used to manage computer devices. You can add or remove hardware or update a device driver using the Device Manager.

## **Direct X**

An application interface developed to enable Windows application programs to access hardware devices at a very high speed. Since the operating speed of graphics, memory and sound cards must be very fast to provide high quality video and sound for games, Direct X enables faster control and interaction between applications and hardware devices. By using Direct X, the multimedia performance of Windows has been hugely improved.

## **Driver**

Software that interacts between the hardware and the operating system. An operating system knows the hardware information and controls the hardware. In general, a driver is supplied with the corresponding hardware device.

## **DVD** (Digital Versatile Disk)

DVD was developed to replace CD (compact disk). Although the shape and size of the disc are the same as that of a CD, the capacity of a DVD is at least 4.7GB while the capacity of a CD is 600MB. DVD video is digital unlike VHS (analog) video and supports MPEG2 compression and digital audio. To play a DVD, a DVD drive is required.

## **Firewall**

A security system used to protect an internal network or intranet from external networks through an authentication procedure.

## **Hibernation Mode**

A power mode that saves all data in memory to the hard disk and turns the CPU and hard disk off. When canceling Hibernation Mode, all application programs that were running are restored to their last state.

## **Icon**

This refers to a small image that represents a file that users can use.

## **LAN (Local Area Network)**

A communications network connecting computers, printers and other devices within a local area such as within a building. A LAN enables all connected devices to interact with other devices on the network. The current LAN uses the Ethernet media access control method developed in the early 1980s. To connect to an Ethernet, a network card called a LAN card, Ethernet card or network interface card is required. To exchange data between computers, a protocol is required besides the hardware equipment. Windows XP uses TCP/IP as the default protocol.

## **LCD (Liquid Crystal Display)**

There are Passive Matrix and Active Matrix LCD types. This computer uses the Active Matrix type LCD called a TFT LCD. Since an LCD is implemented by transistors instead of a cathode-ray tube unlike a CRT, its size can be slim. And because it does not blink, it reduces eye strain.

## **Network**

A group of computers and devices, such as printers and scanners, connected by a communications link. A network can be either small or large and can be connected permanently through cables or temporarily through telephone lines or wireless links. The biggest network is the Internet, a worldwide network.

## **Notification Area**

This refers to the right area of the Taskbar including program icons such as the volume control, the power options and the time.

## **Power Schemes**

This refers to a pre-determined power management option group. For example, you can set the time the computer waits before entering Standby Mode, or before the monitor or hard drive turns off. The settings are saved as a power scheme.

### **Quick Launch**

This refers to a toolbar that can be configured so that you can launch a program such as Internet Explorer or display the Windows Desktop with one click. You can add any icon to the quick launch area of the Taskbar and launch frequently used program by clicking that icon.

### **Server**

In general, a server refers to a computer that provides shared resources for network users.

### **Share**

This refers to setting a resource of a computer such as a folder or printer so that other users can also use it.

### **Shared Folder**

A folder that can be used by other users on the network.

### **Network Administrator**

A user who plans, configures and manages network operations. Sometimes, a network administrator is called a system administrator.

### **Sleep Mode**

A power mode that enables computers to save power consumption when they are not being used. When a computer is in Sleep Mode, the data on the computer memory is not saved to the hard disk. If the power is turned off, the data in memory will be lost.

### **System File**

System Files refer to files that are read and used by the Windows operating system. In general, system files must not be deleted or moved.

### **USB (Universal Serial Bus)**

This refers to a serial interface standard developed to replace the conventional interface standards such as Serial and PS/2. While USB 1.1 supports 12Mbps (12 million bits per second), USB 2.0 supports a data rate that is 40 times (480Mbps) faster than that of USB 1.1. The data rate of USB 2.0 is equivalent to that of IEEE1394. Therefore USB 2.0 is used for A/V devices supported by IEEE 1394 and a 2nd HDD and CDRW that require a high data rate.

### **Windows**

The name of an operating system developed by the Microsoft Corporation. Windows Vista is installed on this computer.

### **Windows Media Player**

A multimedia program included with Windows. Using this program, you can play a media file, create an audio CD, listen to a radio broadcast, search and manage media files, and copy files to a portable device, etc.

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